

RURAL INDUSTRIALISATION FOR BACKWARD AREA DEVELOPMENT

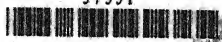
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*Rural Industrialisation
Backward area planning*

G.S. MEHTA



**Giri Institute of Development Studies
Sector O, Aliganj Housing Scheme
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PREFACE

In an emerging situation of continued fragmentation of land holdings leading to decreasing availability of arable land per farm household the agriculture sector would neither be in a position to create additional employment opportunities according to increasing trend of rural labourforce nor it would sufficiently sustain the livelihood of farm households in agriculturally poor and low growth regions such as hilly and mountain areas. In fact, the scope of initiating economic diversification through undertaking large scale production system and industrialisation thereby meeting out the challenges of unemployment and livelihood problems in hilly areas is largely restricted by certain environmental constraints, the thin spread of usable resources across difficult and inaccessible terrain, inaccessibility to markets and modern inputs and technology, deficient infrastructure and high transport cost leading to non-competitiveness of such products. Therefore, the only tangible option to overcome from the emerging challenges of creating employment and income for rural communities in mountain and hilly areas lies in terms of initiating small scale production system at household level through harnessing certain environmental resources with traditionally developed indigenous technologies. As almost the areas in hilly part of Uttaranchal have been possessing certain comparative advantages and opportunities for establishing different locally available raw material based small industries.

Keeping into consideration the above highlighted facts into account the present study centred out to assess the development potential and emerging structure of different product groups of rural industrial activities in different geographical locations of purely hilly areas in Uttaranchal. More specifically the study attempted to examine, firstly, the mode of establishing growth, origin, structure, background characteristics of expansion and factors influencing to the growth pattern of different

product groups of rural industries; secondly, participation pattern of rural households and their workforce in expanding rural industries, characteristics of entrepreneurs, significance of undertaking rural industry at household level in terms of providing employment and income opportunities; thirdly, structure of capital investment, use of machinery and technology, financing and credit requirement for expansion, size of production, productivity, profitability, supply conditions of raw materials, and marketing arrangement for selling rural industrial products; fourthly, emerging problems and the perceptions of present entrepreneurs for their planning of undertaking diversification in the future and kinds of external interventions required for strengthening the expansion of various rural industrial activities in different geographical locations. And finally, the study recommends the kind of planning strategy to be adopted for developing different product groups of industrial activities in different geographical locations.

This study has been financially sponsored by the Indian Council of Social Science Research, New Delhi. I am extremely thankful to the Council for providing me an opportunity to undertake study on such an important issues and the subjects of my own interest by its financing. Thanks are due to the officers of Rural Development Division, Uttaranchal, especially to Dr. P.S. Gosai, for providing full co-operation and necessary help in providing secondary data from different documents and directing other officials of sample districts and block panchayats to provide necessary assistance to the survey team in obtaining required primary data from different sources.

A major part of the present study was undertaken at the Giri Institute of Development Studies, Lucknow while its finalisation could be possible at the Institute for Studies in Industrial Development, New Delhi, as a result of my joining

to the latter organization. I sincerely thank to Prof. A.K. Singh, the Director of the Giri Institute of Development Studies, Lucknow for providing required support and encouragement in undertaking this study and then allowing me to complete the part of the study at the ISID, New Delhi. I am also extremely grateful to Prof. T.S. Papola, the Director and Prof. S.K. Goyal, the Vice-Chairman and Emeritus Professor of ISID, for providing me necessary infrastructural facilities and help in completing this study at the Institute.

Finally, I would like to express my appreciation of the excellent team work displayed by the members of study team. Collection of data and its analysis was conducted by Mr. B.S. Koranga, Mr. S.K. Trivedi, Mr. K.S. Deoli, Ms. Raina Saxena and Ms. Huma Rizvi. Mr. Manoharan, K., Mr. R.S. Bisht and Ms. Geeta Bisht provided the secretarial assistance in all the stages of project and word processing of the manuscript of the study report.

G.S. MEHTA

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CHAPTER I

INTRODUCTION, SCOPE, OBJECTIVES AND METHODOLOGY

It has universally been well recognized that in an emerging situation of continued population pressure on land both for employment and livelihood, an ever declining rate of land-man ratio, increasing fragmentation of agricultural holdings and inequalities in the distribution of arable land for cultivation among farming households, decline in per household income originated from farming system and increasing application of labour saving farm production technologies, the agriculture sector is expected, would hardly be in a position to provide gainful employment opportunities at the level the rural labourforce is increasing and to sustain the livelihood of the rural households. Papola (1984) argued that even a rapidly growth of agriculture is unlikely to employ the entire labourforce at reasonable level of productivity and income. Agricultural growth in such situation should be more than the growth of population, accounting at the same time for the fact that the technological progress that has required for achieving high rate of growth may reduce the elasticity of employment to output much below unit. In fact, in a situation of bringing appropriate technological advancement in agriculture sector the rural labourforce cannot be employed fully in agricultural activities in land scarce countries (Islam, 1987). Even in agriculturally potential and high growth regions, the scope for further development in agriculture so as to create additional employment opportunities seems to be tapping off (Mahajan, 1993).

In addition to above highlighted facts advanced in terms of lacking ability of agriculture sector to provide productive employment to labourforce in the rural areas, a

second most important perception is also that under employment among those engaged in agriculture would continue to be a feature of rural employment due to the very nature of agricultural activities and thirdly the organised industrial sector, mainly concentrated in urban areas, has not been growing fast enough to absorb the growing labourforce even in larger cities, let alone the rural workers migrating into urban areas for seeking employment opportunities in industrial sector. In all, the rural labourforce is neither employed for a whole year duration nor they earn sufficient income to sustain their minimum livelihood requirements.

Recognizing the well visualized facts of the extent of unemployment and under-employment situation boosting up unprecedentedly in rural areas, the diversification of rural economic system through expanding various potential non-farm activities in general and especially rural industrial activities in particular seems essential and as an instrumental approach for reducing the emerging problems of employment creation and the generation of income, particularly for the disadvantaged groups, which lacking productive assets and small holders and landless labourers. In this context, it would be necessary to initiate for developing a comprehensive long term planning approach towards the development of various potential rural industrial activities. Such planning exercise should be aimed firstly to examine the overall situation and pattern of existing industrial enterprises and then attempt should made to identify most niche based product groups of enterprises which have been possessing certain locational advantages in its sustainable development. It is expected that undertaking such exercise would not only provide a strong base and alternative option for creation of additional employment opportunities and avenues of income for rural households owing very size of cultivated land and landless labourers within the rural areas itself but it shall equally prove an important approach for bringing drastic reduction in the rate of rural-urban migration of population.

Undoubtedly, the household based cottage and artisan activities have been playing a dominating role in the rural economic system in almost the regions of the countries since long. In the past, a number of studies have been undertaken to examine the contribution of rural industrial activities in the creation pattern of employment and income opportunities for rural communities, factors influencing to and the trend in growth of different product groups of rural industries, causes and consequences which limiting the scope for their expansion at regional level and in different states across the country [Papola (1987), Bhattacharya (1986), Kabra (1992), Mathur (1993), Basant (1993)]. However, relatively a little information is available in matters related to the mode of establishing and growth structure, potentials and sustainability aspects, nature and extent of participation of different communities, possibilities of expansion of certain enterprises which possessing location specific comparative advantages and opportunities in their development, kinds of factors influencing the efficiency and growth pattern of different rural industrial activities. In addition, a systematic and appropriate information is not readily available regarding the extent and level of contribution of various rural industries in the total income of rural households and its expected contribution to be derived in the future in the perspectives of regional development and lastly, the overall contribution of these enterprises to be achieved in meeting out the persisting challenges of unemployment, poverty, income inequality, etc. in rural areas.

So far the studies undertaken during the recent past have generally examined the structure of employment in rural non-farm sector, including in rural manufacturing activities through obtaining required employment data from sources such as Census documents, Economic Surveys, various rounds of NSS Reports and also undertaking

sample studies at regional level. An important findings of the past studies have explicitly presented the fact that the structure of employment has been increasingly changing in rural areas over the years. This is in the sense that the concentration of workforce in farm sector has been consistently narrowing down, in spite the fact that the concerned sector is still a dominant source of employment in rural areas. At the same time the employment in rural non-farm sector have been widening considerably [Krishnamurty (1984), Eapen (1994), Chadha (1994)] while both number of rural industries, especially household based manufacturing activities as well as employment in these enterprises have been decreasing during the recent past [Basant (1993), Mehta (2002)] A study by Chadha (1993) further points out that the income generated from primary sector, consisting of agriculture and its associated activities is steadily declining while the respective share of non-farm sector is consistently increasing ever since the beginning of planning era.

On the whole the rural manufacturing sector has been witnessed performing a dominating role after agricultural activities both in terms of providing employment and income opportunities to the rural labourforce. However, most rural labourforce can engage on it for a shorter duration during the off-agricultural season because of distress. A study by Papola (1992) also reveals the fact that manufacturing activities constitute the second largest sector and account for over 7 per cent of the total and one-third of the non-agricultural employment in rural areas. However, the potentials of creating increasing employment have been recognized significantly higher in modern categories of enterprises as compared to household base traditional one. This is indicated by the fact that the rate of employment is growing at more faster level in non-household manufacturing activities than in the household based manufacturing activities

(Mathur and Pani, 1993). Similarly the income generation potentials as well as elasticity of creating additional employment on sustainable basis have also been visualised largely in favour of former categories of enterprises than the case of latter categories of enterprises. These recognized differentials in both the concerns are seen largely as a reflection of differences exist in the level of per unit capital investment among them.

The labour productivity in household manufacturing sector also tend out to be relatively at lower level than in non-household manufacturing sector because the former groups of units have continued mainly as a part of tradition and use locally developed indigenous mode of traditional technologies in the production of goods through largely using unpaid family labour while the non-household manufacturing enterprises have been rarely using traditional mode of production technology and are largely dependent on the hired labourers for their properly operations. However, in spite of very low level of productivity and income generation capacity involved in household based traditional manufacturing activities they continue to exist and in some cases grow because firstly, the involvement of labourforce engaged in these activities is a result of distress and secondly, there is a local demand for their products (Basant and Kumar, 1994). Similarly, a most significance of engaging rural labourforce in concerned activities is a result of seasonal nature of agricultural operations and lacking employment outside rural industrial enterprises and agricultural activities. In this sense the survival of existing rural industrial activities and the process of expansion of more employment oriented product groups of manufacturing activities should be maintained, otherwise it will be rather difficult to overcome from the challenges of unemployment and poverty in rural areas (Mathur, 1973; Mehta, 2004). Restructuring of rural industrial enterprises through upgrading their production technology and changes in product mix would,

therefore, be a rather positive direction for strengthening the per worker productivity and increasing the income level of rural households (Visaria and Basant, 1994).

APPROACHES TO RURAL INDUSTRIALISATION

In the past development approaches as emphasized for rural areas the agriculture played a central role and the strategy has been to develop rural industries in close integration with programmes of agricultural development. In fact, such approach continued from the beginning of First Five Year Plan. The First Plan stated that the production of large-scale industries has increasingly limited the market for several rural industrial activities in general and traditional artisan activities in particular. Development outside the rural sector has not been rapid enough to arrest the increasing pressure of population on the land. The development of village industries should, therefore, be as much a better of state action as the increase in agricultural production. Greater initiatives have been undertaken to the goal of achieving increasing rural industrialisation during and after the second Five Year Plan. Thus, over the years, the rural industrialisation has been accepted as much as essential ingredient of rural development strategy as industrialisation as such is of the development strategy for the country.

Rural industrialisation could be approached as an aspect of the spatial diversification of industries, in which case it can be treated as a part of the problem of location of industries. The arguments can be forwarded that concentration of industries only in larger cities would not be conducive situation if one consider into account the issue of an equitable pattern of growth. Therefore, the emphasis should be centred around to emphasize upon the diversification of industrial enterprises into small towns, backward areas, and rural areas. The issues that should be examined and consider into

account in this context are the locational flexibility of industries, economic of agglomeration and scale availability of required infrastructural facilities and the kind of approaches to be required for expansion of different product groups of industries in a given situation. In addition, it would also be necessary to find out the reasons of lacking industrial expansion in concerned locations and the kind of necessary conditions to be created to attract the industrial diversification.

Given the situation of lacking different resource endowments specially various infrastructural facilities as required for expansion of different product group of industrial enterprises it would be not feasible to divert or establish every product group of industries in rural areas. In this context, an important question relates to the identification of the type of industry to be in advantageously set up. In identification of such industry to be located in rural areas it should have both backward and forward development linkages in terms of capacity to provide an opportunity to prosper other productive economic activities. Considering into account the practically visualised facts of lumpiness of investment and indivisibilities characteristics the necessary infrastructural facilities may limit the possibility of expansion of different identified industrial enterprises even they are possessing certain area specific locational advantages in their expansion. Therefore, a cluster approach for identification of central location in particular to different product groups of industries would be a most ideal option for diversification of industries in rural areas. This process could lead to the expansion of various other supporting services to the enterprises and the development of various other economic activities.

The other approach of rural industrialisation is mainly centred around on developing appropriate strategy conducive to the efficiency upgradation of already

existing various household based artisan activities and traditional crafts. Conceptually, the concerned approach calls for the development of rural industries rather than an approach for rural industrialisation. The village industries and traditional crafts have been productively engaging a sizeable part of rural population for centuries. They form the part of rural occupational structure. It has been recognized that in comparison to the amount of capital investment generally undertaken in functioning of these enterprises they have been employing much larger size of labourforce in their production system. These units with a little improved technology, increasing the number of goods to be produced by them and assured marketing for their products can make a real contribution to the planned development of the rural areas and thus, creation of addition employment opportunities and generation of income for rural households on a sustainable basis.

Broadly, in the context to overcome from the challenges of providing employment opportunities for additional labourforce and improving the livelihood situation of farming households in rural areas the approaches of initiating programmes for development of both cottage industries and traditional crafts as well as undertaking the expansion of certain product groups of modern industrial sector would be the most important alternative option. Though seeking the introduction of modern industry into the rural areas has limitations for its application to the logical conclusion of industrialising each village. On the other hand, the village industries approach limits the scope of product diversification and inter-sectoral and spatial linkages because of its coverage being limited to village crafts, although it brings employment and income to rural communities within the villages. A mid-way between the two where the product structure of the industries located in the rural areas is well diversified to include the

modern and traditional industries according to the suitability of the local conditions may be preferable (Papola, 1984).

ELEMENTS INFLUENCING TO THE EXPANSION OF RURAL INDUSTRIES

So far the studies carried out during the recent past have differential opinions concerning to the type of elements influencing to the expansion pattern and development of various categories of enterprises. Overall facts emerging in this direction are that the region specific endowment characteristics such as access to infrastructure facilities especially access to transport communication and marketing facilities have been playing a crucial role in the development of rural industries. Also the findings of a large number of studies have revealed that the pattern of agricultural growth, extent of commercialisation of agriculture, distribution and size of operational holdings, growth of literacy, urbanization, kinds of Government Policies and Programmes initiated for promotion of rural enterprises and their operationalization pattern, internal and external demand conditions of goods and services produced and rendered by this tiny sector enterprises are equally most important factors influencing the structure and growth of rural industrial activities, though the role and pattern of these factors have been witnessed significantly vary among different regions [Vaidyanathan (1968), Unni (1991), Mahendra Dev (1990), Jayraj (1989)) even within a region across the districts (Singh, 1998).

Among the studies citing a strong relationship between the growth of agricultural development and expansion pattern of rural industrial enterprises provide the arguments that the growth in agriculture and its commercialisation directly or indirectly enhance the supply of adequate raw materials, create greater demands for various inputs and allied services, raise local and external demands for consumption goods and

create the possibility of generating surplus for its further investment on expansion of potential rural industries. At the same time, the findings of studies by Papola (1987), Visaria and Rakesh (1994), Singh (1993) are also that the agricultural development could improve the efficiency of rural industrial enterprises without necessarily increasing their numbers. Even the agricultural growth is found to facilitate an improvement in the situation of only few industrial activities producing goods for general use and are capable of adopting new pattern of demand. In fact, certain extent of uncertainty has been emerging in assessing the level of financial investment on the expansion of rural industrial enterprises being facilitated from the surplus generated from agriculture sector.

Nevertheless such kind of positive relationship between the extent of agricultural surplus to be generated and its size of investment, which occurs on the expansion of rural industrial enterprises, can be hardly recognized in agriculturally low potential areas where undertaking farming activities can not prove to be sufficient even for maintaining the minimum food requirement of its farm households. In particular to such food scarce regions the elements influencing to the expansion pattern of various industrial enterprises could be entirely of different nature as compared to those are emerging in agriculturally developed regions. To some extent, certain food and activities related to farming sector manufacturing enterprises may grow simultaneously with the growth of agriculture sector only in favour of latter groups of regions while other elements such as access to various necessary infrastructural facilities, raw materials and marketing facilities and effectiveness of Government policies, internal and external demand situation of their products could be the important determinants for the healthy growth of different enterprises in both the categories of regions. Also, the impact of

urbanization in the expansion of rural industries is found not very encouraging factor (Singh, 1994).

To a certain extent, diversification and commercialisation of agriculture through introduction of market oriented high value crops in farming has been viewed would prove in promoting the expansion of various farm based agro-enterprises in rural areas. At the same time it has been largely argued that agricultural diversification would mainly attribute to enhance the income of farm households rather than to increase the employment opportunities to a greater extent. In this context, the assumptions are that the direct implication of agricultural diversifications can be well visualised in the form of increasing consumption demand and generating surplus for investment (Papola, 1989). In fact the degree of commercialisation in agriculture could be the most important determinant, which positively influence the favourable expansion of non-farm sector economies in general, and its most productive segment known as rural industrial enterprises (Vaidyanathan, 1986 and Sankaranarayan, 1980). Over and above the studies in the past have well documented the fact that the growth pattern of different product group of rural industries in particular region have been largely influenced and determined by various natural endowments, physical structure and the development pattern of certain infrastructural facilities and certain fundamental factors. Also the various factors attracting to the growth pattern of concerned sector largely varied between one to another region, even among different geographical locations in the same region. But the overall contribution of rural industrial sector has been well recognized in terms of both providing employment opportunities to the increasing rural labourforce and sustaining the livelihood of farming households, especially those owing tiny size of farm holding in different regions.

Increasing importance of non-farm sector, especially its rural industrial segment have been directly seen in terms of increasing proportion and concentration of workforce in concerned sector and its declining trend revealed in agricultural sector in different states. This revealed shift of workforce into non-agricultural activities has been witnessed partly due to unprecedently increasing trend of population and its addition to labourforce and partly due to declining capability of farm sector to provide employment opportunities to the extent that labourforce has been increasing in rural areas. Even most of the labourforce among those are employed in different non-farm activities are under the situation of underemployment, which intend them to engage in numbers of non-farm occupations. It has been estimated that on an average a non-farm worker is engaged in more than two occupations. Even then they do not find employment for a whole year period (Mehta, 2005; Vaidyanathan, 1986).

In this context initiating for developing a comprehensive planning approach in favour of expansion and development of potentially viable and productive rural industrial enterprises in general and the enterprises which are possessing certain area specific comparative advantages in their development perspectives, following backward and forward development linkages and have the potentials of creating maximum employment opportunities and generation of income in specific to particular region could be a rather instrumental approach for bringing reduction in the unprecedented challenges of increasing poverty and unemployment in rural areas. This approach has been viewed would be more desirable especially in the context of agriculturally backward and land scarce regions such as hilly and mountain regions as compared to agriculturally developed regions.

THE PRESENT STUDY

In the context of above presented significance for initiating development approach for rural industrial activities so as to achieve its contribution in meeting out

the emerging challenges of creating additional employment and income opportunities for sustaining livelihood of rural households the present study was undertaken in the state of Uttaranchal. Uttaranchal, a tiny state, spread over an area of around 53.4 thousand sq.kms. and dominated by mostly hilly and mountain areas, is one of the most socio-economically under-developed States in India. The state is inhabited by about 8.5 million population. The agriculture and allied activities, including animal husbandry constitute the economic base and the main source of livelihood and employment for the people. However, unprecedented growth of population on one hand and decreasing availability of arable land for cultivation due to increasing pace of landslides, soil-erosion and degradation of various environmental resources as required for sustaining agricultural productivity, degradation of the quality of land due to increasing scarcity of water for irrigation of farms on the other have been increasingly intensifying the problems of sustaining livelihood of the farming communities. The technology used in farming system is also traditional. The scope of technological upgradation and innovation so as to increase per hectare productivity seems to be a rather difficult task because the agricultural operations are undertaken largely under rainfed conditions in terraced field. As over 64 per cent of the cultivated land area is lacking the facility of irrigation. Even the farm holdings are very small and undertaking farming on them becomes a very un-economic affair. Average size of holdings constitute of below one hectare while per cultivator size of land area is only 0.57 hectares and around 88 per cent of holdings are in the category of marginal farms.

Moreover, the concentration of labourforce in agriculture sector continued to be dominating for past several generations, though its proportion is considerably declining and shifting towards non-agricultural activities. The worker participation rate in the

state constitutes at much higher level as compares to national average, which makes up around 37 per cent, 46 per cent for males and 27.09 per cent for females. Of the total workforce employed in different economic activities, around 58 per cent, comprising 44 per cent among men and 84 per cent among women are alone engaged in the farm sector. In terms of contribution of different sectors towards state income, agriculture (including animal husbandry and fishing) contributes about 67 per cent, manufacturing activities 20.8 per cent, forestry and logging 8.78 per cent and mining and quarrying 4.2 per cent. However, the dominance of agricultural sector has been recognised losing its ground in terms of its share into the states income while the contribution of income generated from non-agricultural sector has been appreciably increasing during the recent past periods. The consequences of declining share of income from agriculture sector have resulted the increasing shift of over 3 per cent of workers into non-farm sector activities annually.

Although the labourforce has been increasingly influenced to make shift towards different non-farm activities for employment but this shifting pattern should not be considered economically quite beneficial to them. This is in the sense that due to lacking employment opportunities during the off-agricultural season they are forced to engage in very low paid non-farm occupations. In fact the labourforce have been moving into a number of occupations for employment in non-farm sector, which averaging over three occupations during a year. Even then they neither get the employment opportunities for a period of a whole year nor the income being generated from respective occupations is sufficient to maintain their livelihood.

Hence the creation of productive employment opportunities and to sustain the livelihood situation of farming households have been viewed at the major challenges in the state, especially in its hilly and mountainous areas. The scarcity of cultivated land

with the farming households is highly prevalent as noted earlier. Even undertaking the initiatives for making appropriate diversification in farming system has been considered not a easy task due to lacking irrigation facilities and inaccessibility situation prevailing in facilitating certain support services to perform the concerned goal. Similarly, initiating agricultural diversification through shifting of available scarce land form using it under the production the cultivation of various high value niche based crops would only maximize per hectare and per farm household income but it would not be a sufficient measure to provide productive employment opportunities to the additionally increasing labour force. At the same time the scope for initiating a large scale economic diversification, especially through approaching for industrialisation and large scale production system is severely restricted in the hilly and mountain part of the state because of a number of fundamental factors such as the limited environmentally sensitive resource base, the thin spread of usable resources across difficult and inaccessible terrain, inaccessibility to markets and modern inputs and technology, deficient infrastructure and insufficient energy and high transport costs leading to non-competitiveness of products.

However, initiating small scale production at household level through scientifically harnessing certain environmental resources based on traditionally developed indigenous mode of technologies have not proved effect the local environmental and ecological system adversely. In fact almost the hilly districts have been possessing certain area specific advantages and opportunities favouring for the expansion of locally available resources, both technologies and variety of raw material based different product groups of industrial enterprises. Though the extent and level of such opportunities and comparative advantages are largely varying between hilly and plain areas but largely favouring to former areas as compared to latter areas.

In all, various non-farm activities, especially modern categories of industrial activities have been developing in an important manner in almost the geographical locations of the state which could be basically due to the fact that the improvements in access to transport facilities has increased the opportunities of marketing of their produced into near by small towns during the recent past. What is more important in presently emerging situation is to initiate a development planning for expansion and promotion of potential product groups of manufacturing activities so that firstly increasing labourforce could be productivity employed and the unprecedented rate of increasing migration that take place by active human resources into plain areas outside state for seeking employment could get reduced and secondly the livelihood situation of farm households could be improved to a certain level. The concept of developing various potential rural industrial activities in rural areas of Uttaranchal is also quite significantly implies in view to promote a shift of labourforce from low productive, distress type and subsistence agricultural activities to those whose have a higher level of productivity, are more market oriented and sustainable in terms of local resource endowments and market interactions. These shifts have also a significant importance in the process of the overall economic development and more relevant for poverty eradication and sustainable use of natural and human resources.

In the past, the traditional household based rural industrial activities have been extremely important for the poor groups of rural households because of their limited access to agricultural land and other productive assets. The socio-economically poor segment of population as scheduled castes and scheduled tribes and low income groups have traditionally been engaged in non-farm activities for the past several generations and are still largely employed in these activities in the state. These activities include, carpentry, mating, rope making, traditional handicrafts, blacksmithy, spinning and weaving of woolen yarn and basketry.

THE OBJECTIVES OF THE STUDY

Considering the importance of rural industrial sector in the development perspectives of Uttaranchal in general and realizing the expected role of expending this sector in view of reducing the problems of unemployment and poverty in rural areas of the state, the present study attempted to examine the following issues and aspects.

- (i) The mode of establishing growth and the expansion and origin of various rural industries, socio-economic characteristics of rural industrial households, factors and linkages influencing the growth and expansion of different categories of rural industries:
- (ii) The structure and sources of finance for capital investment, size structure of production, use of technologies and machinery, entrepreneurship, employment pattern and the contribution of different rural industries in the income of different socio-economic groups of rural households.
- (iii) The procurement pattern, availability situation, cost of procurement and sources of supply of various raw materials and the marketing arrangements for selling final products.
- (iv) The performance, productive efficiency, profitability in terms of various indicators, development prospects, problems existing in property functioning and the perceptions of rural households for their planning development and measures to be initiated to strengthen the expansion of various rural industries in different geographical locations.
- (v) Extent and Nature of participation of different socio-economic groups of rural households, factors influencing and motivated them for opting the expansion and reasons for lacking participation in planning for establishing different industrial

activities and finally to find out the kinds of planning strategy to be adopted for developing various rural industrial activities in different geographical locations of the state.

HYPOTHESIS AND RESEARCH QUESTIONS

In addition to above objectives the study has also attempt to examine and pose the following hypothesis in order to understand the operational situation of various rural industrial activities and also to suggest in detail, about the kinds of approaches could be initiated for developing different categories and type of rural industries:

- (i) The linkages between the quantum and quality of different product groups of rural industrial enterprises with poverty.
- (ii) The nature of rural industrial activities as we move up along the farm size continuum.
- (iii) The dynamic and market friendly component of the different product groups of rural industries contrasted to the one pursued as a distress phenomenon.
- (iv) The constrains that the rural industrial sector is likely to face when the economy opens up further and so on.

METHODOLOGY AND THE SAMPLE

The study is based on both secondary as well as primary data. The secondary data could available only in terms of number of rural industries, structure of employment and investment pattern. The primary data was collected among a cluster of villages located in three districts, namely Pithoragarh, Almora of Kumaun division and district Pauri Garhwal of Garhwal division in Uttaranchal. The selection of sample districts was undertaken among those fall in purely hill areas because the problem of

un-employment, poverty and maintaining livelihood has been stated more serious challenges in hilly areas than in the plain areas. Considering the fact that there existed larger differences in the opportunities of employment, pattern of economic development, distribution of various productive assets including land, access to different infrastructural facilities and elements determining the expansion and growth pattern of different product groups of rural industrial activities and so on among different geographical locations of the state, even within a district and at block level, the selection of sample villages and industrial units for covering under the study was carried out among the district located in all the three locations i.e. high, middle and low hill areas. Accordingly one block from each district and a cluster of villages from each high, middle and low hill areas of each block were taken up for obtaining the required primary data. Thereafter certain information in connection to the structure of presently existing units, characteristics of such units those have been close down and some basic characteristics of all the existing 6146 households in the 43 sample villages was obtained.

In order to collect primary information we identified 1091 rural industrial enterprises for the survey. These selected units were confined in the line of ten different product groups. The number of units covered from high, middle and low hill area constituted to 447, 272 and 372 respectively. A detailed break-up of different product groups of enterprises covered from different geographical locations is as follows:

Table 1.1: Number of Rural Industries Covered from Different Locations

Sl.	Type of Unit	Area			
		High Hills	Middle Hills	Low Hills	All Areas
1.	Woollen Textiles	165	1	-	166
2.	Mating & Basketry	115	75	78	268
3.	Carpentry	19	42	80	141
4.	Blacksmithy	43	48	45	136
5.	Rope Making	47	55	60	162
6.	Flour Mills	10	14	32	56
7.	Tailoring	30	22	42	94
8.	Comb Making	18	12	4	34
9.	Others	-	3	31	34
10.	Total	447	272	372	1091

CHAPTER -II

STRUCTURE, GROWTH PATTERN AND BACKGROUND FEATURES OF EXPANSION

The rural industries in the State constitute in the categories of both traditional and non-traditional modern type of household based manufacturing activities which contribution has been well recognised in terms of both providing employment opportunities to a fairly larger segment of labour force and originating incomes for different groups of farm households especially those owned a very small size of arable land among different geographical locations. However, the rural industries are largely dominated by traditional form of household categories which operation is basically based on locally available raw materials and indigenous mode of locally developed production technologies. In this, sense, the expansion of the avenues of industrial employment may be viewed as a major way for diversifying the rural economy (Mathur 1993) and to promoting the absorption of surplus agricultural labourers (Lipton 1982). However, the striking features are that over the years, both household and non-household industries are declining in rural areas.

According to the industry department the total number of household based industrial enterprises in the state were recorded to 41890 in which 45171 labourforce was employed. Total amount of invested capital in these enterprises accounted for Rs.30.35 lakh. However, the average size of employment per unit has been registered only a little over one person. Among the existing rural industrial enterprises in the State. the blacksmithy, basket making, matting, rope making, comb making and woollen based enterprises comprise the traditional form of activities while tailoring, iron and steel work, flour mills and servicing and repairing activities constitute the various non-

traditional manufacturing activities. The households belong to certain social groups such as scheduled castes have been undertaking these traditional rural industrial activities as a part of the village economic and social structure from generation to generation. The remaining rural industries have been adopted by both higher castes as well as scheduled caste communities while the woollen activities constitutes the traditional occupations of scheduled tribes; though other caste people in high hill areas have also started to engage in woollen activities during the recent part.

Increasing accessibility to road transport facilities in almost the geographical locations of the state has significantly promoted the expansion of various non-traditional industries especially repairing and servicing enterprises. In fact, most of the repairing and servicing units, tailoring, flour mills and other modern industries are largely concentrated along the road side villages and nearby roads and are rendering their services for both local as well as non-local communities. However, the traditional form of rural industries which are based on locally available raw materials are generally catering the local demands through supplying the goods and articles as required for performing agricultural activities, collection of forest products, construction of houses storing foodgrains while only limited numbers of goods such as different kinds of handicrafts, woollen articles, furniture etc. are sold in local markets as well as outside the State in addition to local villages. The carpentry and blacksmithy households are engaged in the manufacturing and repairing of machines and tools which are used in agricultural operations of farming households as a part of social obligation while the basket making, matting and rope making enterprises are manufacturing a variety of baskets, mats, and ropes. Products such as wall hanging, decoration articles and certain other items such as baskets, which are used for the collection of forest products

and storing of foodgrains are also being manufactured through exploiting ringal (small bamboo) by the basketry enterprises. The woollen activities are known to be traditional occupations of the Bhotia Community households in boarding areas of the State. The Bhotias have been engaged in them along with the rearing of sheep and goats for the past several generations. The woollen products such as shawl, pankhi, thulma, sweaters and several other handicrafts are manufactured by the households engaged in woollen based activities.

STRUCTURE OF RURAL INDUSTRIES

Based on information gathered from all the 43 sample villages it indicated that among the 6146 existing households, around 18 per cent of them have been operating different product group of industrial enterprises. Though the proportion of such households constituted highest at 35 per cent in high hill areas followed by 15 per cent in middle hill areas and lowest at 12 per cent in low hill areas. In all, the rural industrial enterprises in general, especially traditional units are largely concentrated in high hill area by virtue of the easy access to required raw materials for producing locally available material based articles. All these traditional form of enterprises together constituted over 80 per cent of the total existing units in the sample area. In fact their concentration is pointed out as high as 88 per cent in high hill areas as against 71 per cent in middle and 61 per cent in low hill areas. Mating and basketry in middle and low hill areas and woollen based industrial enterprises in high hill areas have been noted as the dominant product groups of enterprises. Over and above it appears that almost all the product groups of enterprises are well spread over in each of the geographical areas; the structure however, differs somewhat with attitude. While some product groups of units, mainly traditional industrial activities are evenly functioning in all areas,

there are certain product group of units such as repairing and servicing, pottery, iron work etc. are mainly concentrated in low hill areas while none of the same product groups of enterprises are located in high hill areas.

Table 2.1: **Structure of Rural Industries by Product Groups**

Type of unit	High Hills	Middle Hills	Low Hills	All Areas	High Hills	Middle Hills	Low Hills	All Area
Woollen Textiles	236	16	-	252	165	1	-	166
Mating and Basketry	303	195	128	626	115	75	78	268
Carpentry	32	32	42	106	19	42	80	141
Black Smithy	66	74	80	220	43	48	45	136
Rope Making	163	149	333	645	47	55	60	162
Flour Mills	13	18	15	46	10	14	32	56
Tailoring	27	20	30	77	30	22	42	94
Comb Making	26	23	13	62	18	12	4	34
Others	-	3	34	37	-	3	31	34
Total	866	530	675	2071	447	272	372	1091

Changes in the Concentration

Examination has also been carried out to analysis the extent to which the changes have been taking place in the concentration pattern of different product groups of units across the different geographical location. The concerned analysis is based on information obtained among all the existing households in sample villages on census basis for the period 1998 and 2004. The analysis reveals that despite a significant decreasing trend witnessed in the actual numbers of almost the categories of industries, especially traditional type of units, the proportionate share has been narrowing down in case of only rope making and basketry and for mating enterprises, that too in each of the geographical locations. It has declined from 30 per cent to 25 per cent for mating and from 31 per cent to 15 per cent for rope making enterprises between the period 1998 to 2004.

Table 2.2: **Changes in the Pattern of Concentration**

Type of unit	1998				2004			
	High Hills	Middle Hills	Low Hills	All Areas	High Hills	Middle Hills	Low Hills	All Area
Woollen Textiles	27.25	3.02	-	12.17	36.91	0.37	-	15.22
Mating & Basketry	34.99	36.79	18.97	30.23	25.73	27.57	20.97	24.56
Carpentry	3.70	6.04	6.22	5.12	4.25	15.44	21.51	12.92
Black Smithy	7.62	13.96	11.85	10.62	9.62	17.65	12.10	12.47
Rope Making	18.82	28.11	49.33	31.14	10.51	20.22	16.13	14.85
Flour Mills	1.50	3.40	2.22	2.22	2.24	5.15	8.60	5.14
Tailoring	3.12	3.77	4.44	3.72	6.71	8.09	11.29	8.62
Comb Making	3.00	4.34	1.93	2.99	4.03	4.41	1.07	3.11
Others	-	0.57	5.04	1.79	-	1.10	8.33	3.11
Total	(866) 100.00	(530) 100.00	(675) 100.00	(2071) 100.00	(447) 100.00	(272) 100.00	(372) 100.00	(1091) 100.00

Note: Figures in brackets represent the actual number of units.

Trends in Growth

A look into the expansion pattern of different industrial enterprises as presented in Table 2.3 suggests that almost the product groups of units in general and traditional form of units in particular have been greatly washing away from the rural seen in almost the geographical locations of the State. Over the years the rural industries have been declining at the annual rate of 7.89 per cent though the concerned trend is marginally higher at the rate of 8 per cent both in high and middle hill areas as against 7 per cent in low hill areas. Among the traditional enterprises this decreasing trend has been reaching as high as 12.48 per cent for rope making followed by 9.53 per cent for mating and basketry though exception is the case of carpentry in traditional groups of enterprises which pattern has been boosting up at the rate of 5.50 per cent annually; 15 per cent in low hill areas and 5.20 per cent in middle hill areas. But the growth trend of concerned industries has been declining at the rate of 5.20 per cent annually in high hill areas.

Among the non-traditional industrial enterprises, the tailoring activities have been fairly well increasing in each of the geographical locations, accounting for a highest level of 6.6 per cent in low hill areas followed by 1.85 per cent in high hill areas and 1.67 per cent in middle hill areas, with an overall annual increase of 3.68 per cent in sample areas. Flour mills are the another non-traditional enterprises which have been unprecedently increasing in low hill areas despite the fact that the same categories of enterprises have shown a declining trend in both high and middle hill areas. The repairing and servicing enterprises which have been confined only in low hill areas are

Table 2.3: **Growth Pattern of Industrial Enterprises During 1998 to 2004**

Type of unit	(Percentage)			
	High Hills	Middle Hills	Low Hills	All Areas
Woollen Textiles	-30.08	-93.75	-	-34.12
Mating & Basketry	-62.04	-61.53	-39.06	-57.18
Carpentry	-40.62	31.25	90.47	33.01
Black Smithy	-34.84	-35.13	-43.75	-38.18
Rope Making	-71.16	-63.08	-81.98	-74.88
Flour Mills	-23.07	-22.22	113.33	21.73
Tailoring	11.11	10.00	40.00	22.07
Comb Making	-30.76	-47.82	-69.23	-45.16
Others	-	-	-8.82	-8.10
Total	-48.38	-48.67	-44.88	-47.32

also declining to the extend of 1.48 per cent annually. Increasing inadequacy in the availability of basic raw materials from the nearby forests and the lacking interest of young generations to get engaged in these low earning based enterprises, especially those forming the traditional line of manufacturing activities have been postulated to be the most important factors behind increasingly decreasing trend revealed in the cases of a majority of rural industrial activities in different geographical locations. Besides, the goods and articles manufactured through using locally developed indigenous mode of production technologies by traditional enterprises such as basketry, mating, woollen and

blacksmithy have also been additionally facing increasing competition with the similar type of better quality goods arising in nearby towns from urban areas; even in villages which area located along the roadsides.

EXPANSION PATTERN

Further it revealed that irrespective of the fact that the rural industrial enterprises have been consistently declining over the years the rural households have been still preferring to opt the establishment of potentially viable enterprises which may be either traditional or non-traditional form of rural industrial enterprises. Furthermore, new industrial enterprises are being set up on a regular basis while the old segments have been closing down and the overall rate of closing down of enterprises seems to be fairly higher than the rate of the expansion of new enterprises. By and large the rural entrepreneurs are largely initiating the expansion and establishment of non-traditional

Table 2.4: **Year of Establishment of the Industries**

Type of unit	1980	1980-90	1990-2000	2000 & above	Total
Woollen Textiles	160 (96.38)	5 (30.12)	1 (0.60)	-	166 (100.00)
Mating & Basketry	233 (86.90)	13 (48.51)	22 (8.21)	-	268 (100.00)
Carpentry	67 (47.52)	41 (29.08)	33 (23.40)	-	141 (100.00)
Black Smithy	115 (84.56)	13 (9.56)	8 (5.88)	-	136 (100.00)
Rope Making	149 (91.98)	9 (5.56)	4 (2.46)	-	162 (100.00)
Flour Mills	8 (14.28)	18 (32.14)	29 (51.78)	1 (1.79)	56 (100.00)
Tailoring	27 (28.72)	24 (25.53)	42 (44.68)	1 (1.06)	94 (100.00)
Comb Making	32 (94.12)	1 (2.94)	1 (2.94)	-	34 (100.00)
Others	20 (58.82)	4 (11.76)	10 (29.41)	-	34 (100.00)
Total	811 (74.34)	128 (11.73)	150 (13.75)	2 (0.18)	1091 (100.00)

form of rural industrial enterprises rather than traditional enterprises because the former categories of enterprises provide significantly higher earnings as compared to latter one. In all, of the 1091 industrial enterprises covered under the present study point view a overwhelming majority of over 74 per cent of them were establishment before the period 1980. Among them the proportion stands at a very large level ranging between over 96 per cent for woollen industries to 85 per cent for black smithy. The proportion of traditional enterprises established during this period ranges to the tune of little over 47 per cent; though the concerned proportion accounted as high as at 59 per cent for repairing and servicing enterprises and it stands lowest at 14 per cent for flour mills.

However, the trend of expansion of rural industrial activities declined during next 1980-90 period, when 12 per cent units came into existence but, it marginally increased to 14 per cent during the period 1990 to 2000. Again this trend has been severely declining during the post 2000 period. In all, the trend of establishing various non-traditional form of rural industries has been consistently increasing over the years. In fact over half of the existing flour mills and around 45 per cent tailoring enterprises came into existence during the period of post nineties. On the other, it seems that the households which were traditionally engaged in certain rural industries for the past several generations have largely discontinued to remain engaged in them due to one or another reasons. But the process of adopting the concerned activities by young generation as a source of livelihood is still continuing but on a reduced scale due to lacking employment and earning opportunities in other economic activities excepting in agricultural sector. During the period of post nineties, the proportion of traditional enterprises came into existence accounted highest among carpentry (23 per cent)

followed by little over 8 per cent mating and basketry enterprises while a greater set back is visualized in the expansion of woollen, black smithy and rope making enterprises (Table 2.4).

BACKGROUND FEATURES OF EXPANSION

The Entrepreneurship

The industrial activities especially traditional one, usually get operated at household level through the participation of its family members. In this manner all the family members which are engaged in the operation of their household based enterprise should be considered as the entrepreneurs of concerned enterprise. However, the head of household holds the key position that handles, controls, bear the risk involved in different stages of operation and manage all kinds of work in the functioning of concerned households based enterprises. Considering these facts in mind the head of the family has been regarded as an entrepreneur from the view point of the present study.

Caste

Most traditional industries are carried out from generation to generation by households belonging to certain social groups as part of the village economic and social structure. Only rope making carpentry, comb making and basketry are of some recent origin. Production of woollen based articles was earlier as the traditional activity of scheduled tribes in which 62 per cent households are still engaged but other castes such as Kshetriya and scheduled caste households have also adopted the same activities with the initiatives undertaken by the Khadi Board and Gandhi Ashram during the recent past. Mating and basketry and carpentry which production is based on locally available raw materials in near by forest were basically adopted by the scheduled

caste households. Presently the lacking employment opportunities have forced the other caste households to establish various concerned product groups of enterprises. Even then the domination of scheduled caste households in both the categories of enterprises can be well seen. Only exception is the case of blacksmithy enterprises in

Table 2.5: **Distribution of Industrial Households by their Castes**

Type of unit	Brahmin	Kshetriya	SC	ST	Muslims	Others	All
Woollen Textiles	-	38 (22.89)	25 (15.06)	103 (62.05)	-	-	166 (100.00)
Mating & Basketry	10 (3.73)	86 (32.09)	170 (63.43)	2 (0.75)	-	-	268 (100.00)
Carpentry	8 (5.67)	29 (20.57)	93 (65.96)	1 (0.71)	-	10 (7.09)	141 (100.00)
Black Smithy	-	-	134 (98.52)	1 (0.74)	-	1 (0.74)	136 (100.00)
Rope Making	26 (16.05)	80 (49.38)	52 (32.10)	-	-	4 (2.47)	162 (100.00)
Flour Mills	19 (33.93)	30 (53.57)	3 (5.36)	-	-	4 (7.14)	56 (100.00)
Tailoring	8 (8.51)	17 (18.09)	68 (72.34)	-	-	1 (1.06)	94 (100.00)
Comb Making	11 (32.35)	-	23 (67.65)	-	-	-	34 (100.00)
Others	7 (20.59)	6 (17.65)	7 (20.59)	-	-	11 (32.35)	34 (100.00)
Total	89 (8.16)	286 (26.21)	575 (52.70)	107 (9.81)	3 (0.28)	31 (2.84)	1091 (100.00)

which the scheduled castes households have been only engaged for generation to generation on social obligation basis. These households have been engaged in manufacturing and repairing of various tools, implements and machinery which are used for agricultural purposes by the households of Kshetriya and Brahmins. The non-traditional rural industrial activities have been operating without any hesitation by every caste groups of households. However, tailoring and servicing and repairing industrial enterprises are dominated by scheduled caste households. Furthermore, the domination of scheduled caste households can also be seen in the operation of almost the rural

enterprises, especially which establishment require very low level of capital investment, largely because they owned very small size of holdings as camped to remaining castes of households for past several generations (Table 2.5). In all, almost the caste and social groups of households have been operating the different product groups of rural industrial enterprises but the proportions of units owned by scheduled castes are noted as high as 53 per cent followed by 26 per cent by Kshetriya 10 per cent by scheduled tribes, 8 per cent by Brahmins and 3 per cent by other castes of households.

Origin of the Enterprises

Since a very high proportion of presently existing rural industrial enterprises are traditional and were established several generations ago an overwhelming majority of over 82 per cent of them are inherited by the present owners from their fathers and grandfathers and only a little over 28 per cent units were established by the present entrepreneurs. It has further pointed out that among the second and third generation enterprises a very high proportion of them are confined in the product groups of comb making (94 per cent) followed by 92 per cent woollen goods; 90 per cent rope making, 87 per cent blacksmithy and 83 per cent mating and basketry and a little over half of the industrial units among comb making, woollen and blacksmithy were established by the grand fathers of the present entrepreneurs; though the proportions of units established one generation before accounted highest among rope making (41 per cent) followed by 37 per cent each woollen and basketry and mating. However, among the non-traditional enterprises a very high majority of units among flour mills (86 per cent) followed by 74 per cent tailoring and 71 per cent repairing and servicing, enterprises were established by the present entrepreneurs themselves (Table 2.6). Thus it is well depicted that the first generation entrepreneurs are largely initiating in favour of the

expansion of various non-traditional rural industries because undertaking the expansion of this categories of enterprises have been recognised provide significantly much higher earnings as compared to traditional form of enterprises (Mehta, 2003). Even then, considering the situation of unemployment crises as emerging in rural areas the facts remains that the inherited traditional rural industries will continue to function even without a good level of earnings they provide due to lack of better employment opportunities and income in rural areas of hilly part in the state.

Table 2.6: **Origin of the Units**

Type of unit	Self	Father	Grand Father	Others	Total
Woollen Textiles	13 (7.83)	61 (36.75)	90 (54.22)	2 (1.20)	166 (100.00)
Mating & Basketry	46 (17.16)	99 (36.94)	122 (45.53)	1 (0.37)	268 (100.00)
Carpentry	72 (51.06)	40 (28.37)	29 (20.57)	-	141 (100.00)
Black Smithy	17 (12.05)	49 (36.03)	70 (51.47)	-	136 (100.00)
Rope Making	16 (9.88)	66 (40.74)	80 (49.38)	-	162 (100.00)
Flour Mills	48 (85.71)	3 (5.36)	5 (8.93)	-	56 (100.00)
Tailoring	70 (74.47)	21 (22.34)	3 (3.19)	-	94 (100.00)
Comb Making	2 (5.88)	10 (29.41)	22 (64.71)	-	34 (100.00)
Others	24 (70.59)	6 (17.65)	4 (11.76)	-	34 (100.00)
Total	308 (28.23)	355 (32.54)	425 (38.96)	3 (0.27)	1091 (100.00)

Factors Motivating to Start Rural Industry

Despite the facts that a overwhelming majority of 60 per cent rural industries were forming the household based traditional activities and nearly 72 per cent of them were inherited by the present entrepreneurs from their parents only a little over one 28 per cent units were established by the present entrepreneurs; nearly half of the

entrepreneurs have decided to engaged in the family enterprises as per their own choice. Even over half of the present entrepreneurs have been no matter motivated by their family members or the relatives in favour of adopting own household based traditional rural industrial enterprises such as woollen, comb making, mat marking and basketry and rope making. Thus is seems that due to one or other reasons the rural youths are still increasingly motivated towards the expansion and establishment of very low earning based household rural industrial activities, while leave aside the attraction of rural communities in undertaking the expansion of more productive non-traditional industrial activities. The proportion of present entrepreneurs who had taken initiative for the establishment of various non-traditional enterprises about themselves accounted

Table 2.7 : **Motivation to Engage in the Unit**

Type of unit	None/Self	Govt.	Family	Friends	Others	All
Woollen Textiles	84 (50.60)	3 (1.81)	72 (43.37)	7 (4.22)	-	166 (100.00)
Mating & Basketry	139 (51.87)	-	93 (34.70)	36 (13.43)	-	268 (100.00)
Carpentry	35 (24.82)	7 (4.96)	68 (48.23)	29 (20.57)	-	141 (100.00)
Black Smithy	17 (30.36)	3 (5.36)	20 (35.71)	15 (26.79)	2 (1.42)	136 (100.00)
Rope Making	29 (85.29)	1 (2.94)	4 (11.76)	-	1 (1.79)	162 (100.00)
Flour Mills	22 (23.40)	11 (11.70)	37 (39.36)	24 (25.53)		56 (100.00)
Tailoring	101 (62.35)	-	48 (29.63)	13 (8.02)		94 (100.00)
Comb Making	79 (58.09)	-	46 (33.82)	10 (7.35)	1 (0.74)	34 (100.00)
Others	19 (55.88)	-	6 (17.65)	7 (20.59)	2 (5.88)	34 (100.00)
Total	525 (48.12)	25 (2.29)	394 (36.11)	141 (12.92)	6 (0.55)	1091 (100.00)

nearly 49 per cent, though the concerned proportion reaches as high as 62 per cent in favour of the establishment of tailoring followed by 58 per cent comb making enterprises. A little over 2 per cent enterprises, comprising of woollen, carpentry, blacksmithy, flour mills and rope making came into existence with the initiatives undertaken by different Government Departments for their expansion under the various self-employment oriented programmes (Table 2.7).

Influencing Factors To The Expansion

The growth pattern of various product groups of industrial enterprises is directly or indirectly influenced and determined by various fundamental factors, which significantly vary according to the socio-economic and pre-locational characteristics of the units in different regions. Thus one set of factor may not sufficiently prove the expansion and growth pattern of industries in almost the regions even in case of the expansion of the similar product groups of industries. For instance in rural areas of Uttaranchal, the factors such as availability of family skill and indigenous mode of production technology, easy access to raw materials, local demands for goods produced by these units, being the household based traditional activity, lacking employment opportunities and motivation of Government for initiating the establishment of industrial units through providing certain financial and technical assistance have found favorably influenced the local entrepreneurs for opting the expansion of various rural industrial activities in their respective villages. Given the situation that a high majority of enterprises were inherited by the present entrepreneurs from their fathers and grand fathers, around 7 per cent of them were not in a position to express regarding the kinds of factors, which motivated them to establish their enterprises. However, easy access

to raw material, availability of family skills and traditional form of occupations together have been noted as the dominant factors for attracting the establishment of around 76 per cent industrial enterprises. However, traditional occupation as a factor for adopting rural industrial activities have been cited mainly by the entrepreneurs engaged in traditional form of enterprises, especially in comb making, woollen and basketry and mating units. But the lacking employment opportunities have cited as a prime factor for the expansion of non-traditional enterprises.

Table 2.8: **Factors Influencing to the Establishment of Industries**

Type of unit	Not Known	Family Skill	Access to Raw Material	Local Demand	Lack of employment	Traditional Occupation	Govt. Facility	Others	Total
Woollen Textiles	5 (2.38)	42 (20.00)	11 (5.24)	1 (0.48)	18 (8.57)	89 (42.38)	42 (20.00)	2 (0.95)	210 (100.00)
Mating & Basketry	27 (9.89)	51 (18.69)	30 (10.99)	2 (0.73)	46 (16.85)	115 (42.12)	2 (0.73)	-	273 (100.00)
Carpentry	7 (4.73)	52 (35.14)	8 (5.40)	2 (1.35)	65 (43.92)	6 (4.05)	8 (5.41)	-	148 (100.00)
Black Smithy	11 (8.15)	80 (59.26)	10 (7.41)	1 (0.74)	13 (9.63)	20 (14.81)	-	-	135 (100.00)
Rope Making	12 (7.41)	48 (29.63)	23 (14.20)	4 (2.47)	34 (20.98)	40 (24.69)	1 (0.62)	-	162 (100.00)
Flour Mills	1 (1.64)	4 (6.56)	8 (13.11)	-	37 (60.66)	-	9 (14.75)	2 (3.28)	61 (100.00)
Tailoring	8 (8.00)	17 (17.00)	2 (2.00)	11 (11.00)	57 (57.00)	-	4 (4.00)	1 (1.00)	100 (100.00)
Comb Making	2 (5.88)	9 (26.47)	3 (8.82)	-	-	20 (58.83)	-	-	34 (100.00)
Others	3 (8.33)	4 (11.11)	1 (2.78)	1 (2.78)	18 (50.00)	4 (11.11)	5 (13.89)	-	36 (100.00)
Total	76 (6.56)	307 (26.49)	96 (8.29)	22 (1.90)	288 (24.85)	294 (25.37)	71 (6.13)	5 (0.44)	1159 (100.00)

Given the situation that a high majority of existing both traditional and non-traditional industrial enterprises were quite old and came into existence before 1980. Its reflection has directly been further visualized while assessing the pattern of joining of present entrepreneurs to their enterprises. As a overwhelming majority of the

entrepreneurs (62 per cent) have joined their present industrial activity before 1985. While only a little over 9 per cent of entrepreneurs continued to engage in present activities after 1995. Again the proportion of entrepreneurs who have been engaged in different categories of industrial enterprises before 1985 comprises a fairly much higher level among those are owing traditional form of enterprises as compared to non-traditional one. While the situation is almost reversal in case of the proportion of entrepreneurs engaged in non-traditional and traditional enterprises during the period of after 1995.

Table 2.9: **Distribution of Entrepreneurs by Year of Joining the Present Activity**

Type of unit	Before 1985	1985-1990	1990-1995	1995-2000	All
Woollen Textiles	115 (69.28)	22 (13.25)	22 (13.25)	7 (4.22)	166 (100.00)
Mating & Basketry	175 (65.30)	34 (12.69)	38 (14.17)	21 (7.84)	268 (100.00)
Carpentry	73 (51.77)	23 (16.31)	31 (21.99)	14 (9.93)	141 (100.00)
Black Smithy	103 (75.74)	17 (12.5)	6 (4.41)	10 (7.35)	136 (100.00)
Rope Making	121 (74.69)	26 (16.05)	10 (6.18)	5 (3.08)	162 (100.00)
Flour Mills	12 (21.43)	13 (23.22)	18 (32.14)	13 (23.21)	56 (100.00)
Tailoring	30 (31.92)	22 (23.40)	19 (20.21)	23 (24.47)	94 (100.00)
Comb Making	31 (91.18)	2 (5.88)	1 (2.94)	-	34 (100.00)
Others	14 (41.18)	8 (23.53)	3 (8.82)	9 (26.47)	34 (100.00)
Total	61.78 (48.12)	167 (15.30)	148 (13.57)	102 (9.35)	1091 (100.00)

Rural Industrial enterprises in the state are being operated by both men and women, though the certain product groups of enterprises such as blacksmithy, rope making, flour mills, comb making and repairing and servicing units have been headed

by the male entrepreneurs only. The proportions of women headed enterprises constituted highest in the product group of woollen (16.11 per cent) followed by tailoring (13 per cent) and mating (12 per cent) and carpentry (1 per cent). Overall a overwhelming majority of around 96 per cent rural industries are managed and headed by men entrepreneurs.

Age

Despite a substantial proportion of rural industrial enterprises were established several generations ago and have been forming a part of traditional activities of the rural households the proportion of enterprises being headed by entrepreneurs having more than 60 years of their age constituted only around 13 per cent while a fairly highest proportion of entrepreneurs (48 per cent) are in the age of 60 years and nearly 39 per cent entrepreneurs are in the young age group of below 40 years. The average age of entrepreneurs has been estimated to 45 years, which, however, it varied marginally in case of entrepreneurs heading different types of enterprises. For instance the average age of entrepreneurs heading flour mills and comb making has been estimated to around 50 years while it averages to 41 years for each woollen and carpentry and 40 years for tailoring entrepreneurs.

A very high majority of over 50 per cent present entrepreneurs among those have been operating tailoring and carpentry enterprises are falling in the young age group of below 40 years while a highest proportion of entrepreneurs which are heading combing, black smithy, flour mills and rope making enterprises are in the medium age group of 40 to 60 years. The observations are also that the proportions of young entrepreneurs entering into the expansion of different rural industries in general and modern categories of non- traditional enterprises in particular constitute relatively

higher in low hill areas as compared to middle and high hill areas. It may be because that the low hill areas have been possessing greater location specific advantages, access to the facilities of road transport and other necessary infrastructure as compared to high and middle hill areas.

Table-2.10: **Distribution of Entrepreneurs by Their Age**
(Age in years)

Type of Unit	Below 40	40-60	60+	Total	Average Age
Woollen Textiles	57 (34.34)	82 (49.40)	27 (16.26)	166 (100.00)	41
Basketry & Mating	105 (39.18)	121 (45.15)	42 (15.67)	268 (100.00)	46
Carpentry	70 (49.65)	64 (45.15)	07 (04.96)	141 (100.00)	41
Black Smithy	44 (32.35)	75 (55.15)	17 (12.5)	136 (100.00)	47
Rope Making	54 (33.33)	81 (50.00)	27 (16.67)	162 (100.00)	46
Flour Mill	22 (39.28)	29 (57.79)	5 (8.93)	56 (100.00)	50
Tailoring	55 (58.51)	33 (35.11)	6 (6.38)	94 (100.00)	44
Comb Making	8 (23.53)	21 (61.76)	5 (14.70)	34 (100.00)	49
Others	14 (41.18)	16 (47.06)	4 (11.76)	34 (100.00)	44
Total	429 (39.32)	522 (47.85)	140 (12.83)	1091 (100.00)	45

Educational Characteristics

The operation of rural industrial activities hardly require highly technical, professional and educated manpower either in managing and controlling the functioning of an enterprise or to involve in production processes. Thus the production process in concerned sector can be performed through involving every category of skilled, unskilled, literate and illiterate work force. Similarly, these activities can be headed equally by both men and women and by different age group of individuals with

engage in different rural industries, including in their traditional household based enterprises. The significance of opting the undertaking of different industrial activities of rural households have also been well reflected in terms of its increasing contribution in the income of industrial households and providing employment opportunities to the labourforce of both industrial households and hired labourers. Average size of per unit or per worker income being generated from different categories of rural industrial units, especially from non-traditional units along with the per household income generated from farm sector seems to be quite sufficient for sustaining the livelihood of rural households. Even this average income generated from both the sources together constituted relatively higher than the prescribed poverty line for rural households.

Illiterate	Primary	Middle	Secondary	Higher	Total
20 (12.05)	40 (24.10)	69 (41.57)	31 (18.67)	6 (3.61)	166 (100.00)
59 (22.01)	74 (27.61)	122 (45.53)	13 (4.85)	-	268 (100.00)
12 (8.51)	32 (22.70)	74 (52.49)	23 (16.32)	-	141 (100.00)
27 (19.86)	37 (27.21)	60 (44.12)	12 (8.83)	-	136 (100.00)
17 (10.50)	61 (37.66)	72 (44.45)	7 (4.31)	5 (3.08)	162 (100.00)
-	6 (10.72)	17 (30.36)	27 (48.22)	6 (10.72)	56 (100.00)
5 (5.32)	9 (9.58)	53 (56.39)	27 (28.73)	-	94 (100.00)
11 (32.36)	13 (38.24)	8 (23.53)	2 (5.89)	-	34 (100.00)
1 (2.95)	4 (11.44)	18 (52.95)	9 (26.47)	2 (5.89)	34 (100.00)
152 (13.94)	276 (25.30)	493 (45.18)	151 (13.84)	19 (1.74)	1091 (100.00)

though different local sources as against the 20 per cent share of raw material procured from out side local villages 10 per cent from local markets and 0.44 per cent from outside state. The woolen, carpentry, blacksmithy, flourmills and repairing and

flour mills and repairing and servicing industries, though their proportion stands only about 2 per cent (Table-2.11).

Joining to Present Enterprise

Further it revealed that despite a very large numbers of enterprises have been the household based traditional activities a fairly high proportion of the present entrepreneurs have joined their enterprise very recently. At the same time an encouraging picture which emerging is that despite a lower level of income could be generated through undertaking different rural industries, the young generation have been increasingly opting to engage in these enterprises, which could be mainly due to lacking employment opportunities, in rural area. The analysis presented in this context in table 2.12 shows that a much larger proportion of over 38 per cent present entrepreneurs have joined the present actively only 5 years ago. Not only that another second majority of 30 per cent and 21 per cent entrepreneurs have been working with their present enterprises for a duration of 5 to 10 years and 10-20 years respectively. Only a little over 11 per cent entrepreneurs have joined their enterprises more than 20 years ago. Increasing attraction of young generations has also been visualized in opting to join mainly their household based traditional enterprises such as woollen, mating and basketry and carpentry rather than modern non-traditional enterprise such as flour mills etc.

Activity Status Before Joining Present Enterprises

Since the analysis presented in preceding part has indicated that lacking employment opportunities within the rural areas has been a predominant factor for a majority of the present entrepreneurs for opting to join or to establish their present rural industrial enterprises. Similarly the analysis further reveals that a fairly high proportion of around 48 per cent of them were no way engaged in any economic activity before joining

the present enterprise. Also, nearly 23 per cent of them were facing the problem of unemployment and 25 per cent were attaining different levels of education.

Table-2.12: **Duration of Employment in Present Enterprise** (In Years)

Type of Unit	Below 5	5-10	10-20	20 +	All
Woollen Textiles	50.00	28.13	15.62	6.25	100.00
Mating & Basketry	45.74	22.34	15.96	15.96	100.00
Carpentry	39.02	31.71	26.83	2.44	100.00
Black smithy	-	-	-	-	-
Rope Making	32.56	39.53	16.28	11.63	100.00
Flour Mill		16.67	33.33	50.00	100.00
Tailoring	31.58	31.58	36.84		100.00
Comb Making	25.00	43.75	25.00	6.25	100.00
Others	38.46	30.77	23.08	7.69	100.00
Total	38.54	29.51	20.84	11.11	100.00

Note: Figures indicate the percentages of total entrepreneurs.

A second majority of over 24 per cent of the entrepreneurs were undertaking wage- paid employment in construction activities and in farming sector before establishing their present units. Among them a highest proportion of entrepreneurs have opted to establish carpentry (46 per cent) and tailoring (29 per cent) enterprises in their villages. The movements of nearly 9 per cent and 2 per cent entrepreneurs took place from the farming and business related occupational structure of employment while around 3 per cent women were engaged in household related activities before joining the present activity. Similarly around 6 per cent of the present entrepreneurs have established different types of rural industrial activities mainly non-traditional enterprises such as flour mills and repairing and servicing units either after getting retirement from Government employment or leaving the last employment. In all a significant proportions of nearly 43 per cent of the present owners of different rural industries were employed in different economic activities prior joining to the present enterprises.

Table-2.13: **Activity Before Joining the Present Enterprise**

Type of Unite	Service	Farmer	Labour	Business	Unemployed	Students	Child	House-Wife	Animal-Husbandry	Others	All
Woollen Textile	9 (5.42)	9 (5.42)	18 (10.84)	9 (5.42)	13 (7.84)	65 (39.15)	16 (9.64)	20 (12.05)	6 (3.62)	1 (0.69)	166 (100.00)
Mating & Basketry	20 (7.46)	32 (11.94)	55 (20.53)	5 (1.87)	60 (22.39)	70 (26.12)	18 (6.72)	3 (1.12)	4 (1.50)	1 (0.38)	268 (100.00)
Carpentry	4 (2.84)	11 (7.81)	65 (46.10)	3 (2.12)	33 (23.41)	19 (13.48)	5 (3.54)	-	-	1 (0.70)	141 (100.00)
Black Smithy	3 (2.20)	6 (4.41)	35 (25.73)	3 (2.21)	54 (39.70)	23 (16.92)	10 (7.76)	-	-	2 (1.47)	136 (100.00)
Rope Making	7 (4.32)	18 (11.12)	38 (23.46)	2 (1.23)	35 (21.61)	45 (27.78)	15 (9.26)	-	-	2 (1.23)	162 (100.00)
Flour Mills	11 (19.65)	6 (10.72)	15 (26.79)	1 (1.79)	13 (23.22)	9 (16.08)	1 (1.79)	-	-	-	56 (100.00)
Tailoring	5 (5.32)	4 (4.26)	27 (28.73)	2 (2.13)	29 (30.86)	17 (18.09)	1 (1.07)	9 (9.58)	-	-	94 (100.00)
Comb Making	-	8 (23.53)	3 (8.83)	-	5 (14.71)	11 (32.36)	6 (17.65)	-	1 (2.94)	-	34 (100.00)
Others	4 (11.77)	5 (14.71)	7 (20.59)	-	5 (14.71)	12 (35.30)	-	-	-	1 (2.95)	34 (100.00)
Total	63 (5.77)	99 (9.07)	263 (24.11)	25 (2.30)	247 (22.64)	273 (25.03)	73 (6.70)	32 (2.94)	11 (1.01)	8 (0.73)	1091 (100.00)

Availability of inadequate earnings and irregularity in the status of employment have been indicated as the most important constraints which forced to the present entrepreneurs to leave their last employment. Around 7 per cent of the owners among woollen, making and basketry, black smithy, rope making, flour mills, tailoring and repairing enterprises together have joined or started the present enterprise after getting retirement from the Government sector employment, mainly difference services while a marginal proportion of little over 1 per cent entrepreneurs who are currently the owners of mating and basketry, carpentry, black smithy and tailoring enterprises were earlier engaged in other categories of rural industrial activities which they left due the reason of lacking and decreasing availability of required raw material locally. The proportions of

Table-2.14: **Reason For Leaving Last Employment**

Type of Unit	Inadequate Income	Irregular Employment	Retired	Lack of raw Material	Others	Total
Woollen Textile	33 (63.46)	9 (17.31)	7 (13.46)	-	3 (5.77)	52 (100.00)
Mating & Basketry	71 (60.68)	32 (27.35)	10 (8.54)	2 (1.71)	2 (1.71)	117 (100.00)
Carpentry	54 (64.29)	29 (34.52)	-	1 (1.19)	-	84 (100.00)
Black smithy	32 (65.30)	13 (26.53)	2 (4.08)	1 (2.04)	1 (2.04)	49 (100.00)
Rope Making	47 (70.15)	17 (25.37)	3 (4.48)	-	-	67 (100.00)
Flour Mill	15 (45.46)	11 (33.33)	4 (12.12)	-	3 (9.09)	33 (100.00)
Tailoring	18 (47.37)	15 (39.47)	2 (5.26)	1 (2.63)	2 (5.26)	38 (100.00)
Comb Making	6 (50.00)	6 (50.00)	-	-	-	12 (100.00)
Others	8 (47.05)	5 (29.41)	4 (23.53)	-	-	17 (100.00)
TOTAL	285 (60.77)	136 (28.99)	32 (6.82)	5 (1.07)	11 (2.35)	469 (100.00)

entrepreneurs who moved to engage into the present industry due to the availability of inadequate income from the past employment constituted highest among the owners of rope making (70 per cent) followed by black smithy (65 per cent) and carpentry (64 per cent) enterprises while the irregular status of employment available in the last economic activities as the reason for engaging in the present enterprise has been stated by a over half of the owners of comb making followed by 39 per cent tailoring enterprises.

Since the scarcity of employment in general and productive employment opportunities in particular have been visualized highly prevalent in almost the areas of hilly and mountainous segment of the state. It is, therefore, the labour force available in farm households have to undertake several economic activities which is easily available.

Table-2.15: **Number of Jobs Undertaking by the Entrepreneurs During a Year**

Type of Unit	Number of Jobs Undertaken					Total No. of Job	All Jobs
	One	Two	Three	Four	Total		
Woollen Textile	10 (8.55)	53 (45.30)	51 (43.59)	3 (2.56)	117 (100)	281	2.40
Mating & Basketry	7 (3.63)	81 (41.97)	87 (45.08)	18 (9.33)	193 (100)	502	2.60
Carpentry	11 (18.97)	21 (36.21)	22 (37.93)	4 (6.90)	58 (100)	137	2.36
Black smithy	1 (2.63)	14 (36.84)	17 (44.74)	6 (15.79)	38 (100)	105	2.76
Rope Making	6 (5.36)	40 (35.71)	53 (47.32)	13 (11.61)	112 (100)	297	2.65
Flour Mill	1 (5.56)	8 (44.44)	9 (50.00)	-	18 (100)	44	2.44
Tailoring	16 (41.03)	11 (28.31)	11 (18.21)	1 (2.56)	39 (100)	75	1.92
Comb Making	2 (6.90)	3 (10.34)	19 (65.52)	5 (17.24)	29 (100)	85	2.93
Others	7 (33.33)	7 (33.33)	6 (28.58)	1 (4.76)	21 (100)	43	2.04
TOTAL	61 (9.76)	238 (38.08)	275 (44.00)	51 (8.16)	625 (100)	1569	2.51

By virtue of the access to agricultural land under the ownership of each of the farming households their available whole labour force find employment in farming activities for at least some durations during the cropping seasons. During off agricultural seasons the entire labour force of all the households start seeking employment in different non-agricultural activities. The situation is almost the same in case of the labour force available in the households, which are engaged in different rural industrial activities. It is, therefore, every industrial household owned at least some parcel of land for cultivation and their family labour force, including the head of family enterprise get engaged in farming activities during the agricultural seasons.

Keeping into consideration to this highlighted situation emerging in the participation pattern and access to employment opportunities we have further

attempted to examine the pattern of inadequacy prevailing in getting different occupational structure of employment. Concerned exercise has been carried out by considering the numbers and frequencies of job undertaken by the present entrepreneurs of different industrial enterprises during the reference period of one year. On an average a owner of the rural industries have to undertake around three jobs including engaging themselves on their family farms and rural industries. This pattern is almost similar in cases of the owners of different rural industrial enterprises, excepting those are engaged in tailoring enterprises. In fact a little over 8 per cent entrepreneurs are reported to have been engaging in more than 4 occupations of employment.

CHAPTER - III

PARTICIPATION IN EXPANSION, CONTRIBUTION AND BACKGROUND CHARACTERISTICS

Differences in the opportunities of employment and the availability of income generation sources are largely prevalent between plain areas and purely hilly and mountain areas of the state. The plain areas have been acquiring a stable and conducive base for the development of both agriculture and industrial sector. As the consequences of it the pace of development have been largely taken place and still continuing to a increasing level in these areas. Thus, the rural labourforce in plain areas have significantly greater options and choices to get engaged in different agricultural and industrial based occupational structure of employment than the labourforce in hilly areas. The hilly areas are absolutely lacking any base for initiating either agricultural or industrial development. Undertaking framing have been recognized as a very uneconomic occupation while the economic development based on the expansion of large industries have been restricted by the available fragile eco-system and certain environmental constraints. Therefore the rural labourforce is either initiating to migrate for seeking employment for its livelihood or getting engaged in marginal agricultural activities and low paid non-farm occupations. As has been observed in preceding analysis that in spite of undertaking more than two jobs, the labourforce in hilly areas is not in a position to find productive employment opportunities for a whole year.

Insufficiency of agricultural activities to sustain the livelihood of farm households in rural areas is well evident by the fact that in spite of every farm households owned at least some cultivated land only a half of them have been reporting concerned sector as their principle source of income. The land in low hill areas is more productive and fertile as compared to middle and high hill areas. Therefore the proportion of households indicated

to have agriculture, as their prime source of livelihood seems to be relatively higher in former areas than the latter one. Further, based on information collected on Census basis from all the 5553 households existing in selected areas of the sample districts the analysis reveals that despite a half of the sample households are primarily engaged in agricultural sector the proportion of households engaged on it stands significantly higher at 56.06 per cent in low hill areas as against 41.28 per cent in middle and 33 per cent in high hill areas.

Table 3.1: **Participation of Households in Different Economic Activities**
(Principle Activity)

Locations	Type of Principle Activity of Households						Total
	Agriculture	Animal Husbandry	Service	Business	Labour	Rural Industry	
High hills	299 (33.00)	218 (24.06)	46 (5.08)	35 (3.86)	62 (6.82)	246 (27.15)	906 (100.0)
Middle hills	511 (41.28)	328 (26.49)	19 (1.53)	17 (1.37)	190 (15.34)	171 (13.81)	1238 (100.0)
Low hills	1911 (56.06)	659 (19.33)	219 (6.42)	45 (1.32)	367 (10.77)	208 (6.10)	3409 (100.0)
All areas	2721 (49.00)	1205 (21.70)	284 (5.11)	99 (1.78)	619 (11.15)	625 (11.26)	5553 (100.0)

The animal husbandry seems to be the second most important activity after agriculture, in which around 22 per cent households are engaged. The non-farm activities are the principle occupation of another nearly 30 per cent households. However, the proportion of rural households participating in different no-farm activities accounted fairly highest in high hill areas (43 per cent) followed by 32 per cent in middle and 25 per cent in low hill areas. Wage paid employment and rural industrial activities are indicated to have been forming a dominant role among different non-farm sector employment in providing income opportunities to the rural households in each of the geographical locations. Since, the proportion of households engaged together in wage-paid-occupations and rural industrial activities accounted for 22.41 per cent; though their proportion varied highest from 33.97 per cent in high hill areas to lowest at 16.87 per cent in low hill areas and 29.15 per cent in

middle hill areas. The participation of households in undertaking rural industrial activities has been found as high as over 27 per cent in high hill areas as against 14 per cent in middle and 6 per cent in low hill areas.

Size of Holdings

In addition to the various factors, as found in earlier analysis which determining the growth pattern and expansion of different product groups of rural industrial enterprises the Zajamani system of social work relationship among different casts and the distribution and size structure of arable land for cultivation among farm households have been forming extremely a sound relationship and linkages in adopting industrial activity of concerned households. The scheduled castes and scheduled tribe households are owing relatively smaller size of land holdings as compared to general caste households. At the same time the former caste group of households have been engaged in carpentry, blacksmithy, basketry and rope making industrial activities to fulfill the demands of certain items produced by them for the general casts groups of households for past several generations on the basis of Zajamani system. As a result the scheduled caste households are still largely engaged in the manufacture of various agricultural implements as well certain other articles based on locally available raw materials to meet the demands of their fixed number of Zajamani households. This Zajmani system of work relationship is highly prevalent in high and middle hill areas as compared to low hill areas by virtue of the inadequate supply of similar better quality of products from outside rural areas and nearby urban segments due to emerging inaccessibility problems in former areas.

In continuation of these forward and backward linkages found influencing the expansion of various rural industrial enterprises the analysis further presents the level and extent of participation from different size categories of farm households in the

establishment of different types of enterprises. The hypothesis in this regard is that there exist significantly larger variations in the participation of rural households in industrial activities across the farm size continuum. Since, almost the households in different locations in rural areas have been deriving at least some amount of income from both non-farm and farm sectors due to the inability of a single sector to provide sufficient income for maintaining their livelihood. In this context it is expected that there should be a negative relationship between the participation of rural households in undertaking rural industrial activities and their size of land holdings. Average size of cultivated land per households in sample areas has been estimated to be only 0.60 hectares, which is almost similar to that of a state average. This indicates that a very small size of land available with the farming households has been compelling them to engage in different rural industries. In fact the average size of holdings of industrial households which are engaged in traditional enterprises such as carpentry and blacksmithy has been reported as lower as 0.44 hectares and 0.46 hectares respectively. Further it revealed that the proportions of households undertaking industrial activities among the farm group of below 1.00 hectares stand highest at around 85 per cent followed by 13 per cent households owning one to two hectares of land and a lowest proportion of below 1 per cent, that too who are engaged in woollen and rope making enterprises are noted among the households with above 3 hectares of land. Among the lowest size categories of farm holders a highest proportion of them have opted to engaged in blacksmithy (95 per cent) followed by 90 per cent each in tailoring and carpentry, 88 per cent each in mending and basketry and servicing and repairing industrial enterprises while a lowest proportion of a little over 39 per cent in flour mills. However, the average size of land holding owned by the households engaged in flour mills has been recorded highest at 1.39 hectares as lowest at 0.44 hectares by each carpentry and tailoring households.

Table 3.2: **Size of Cultivated Land Area by Type of Industrial Households**

Type of Unit						(in hectare)
	Below 1.00	1.00-2.00	2.00-3.00	3.00 and above	Total Households	Per Household Average size of holdings
Woollen Textiles	135 (81.33)	29 (17.47)	1 (0.60)	1 (0.60)	166 (100.0)	0.62
Mating & Basketry	235 (87.69)	39 (11.19)	3 (1.12)	--	268 (100.0)	0.54
Carpentry	127 (90.07)	24 (9.29)	--	--	141 (100.0)	0.44
Blacksmithy	129 (90.07)	7 (5.15)	--	--	136 (100.0)	0.46
Rope Making	133 (82.10)	24 (14.81)	4 (2.47)	1 (0.61)	162 (100.0)	0.73
Flour Mill	22 (39.29)	24 (42.86)	7 (12.50)	--	56 (100.0)	1.39
Tailoring	85 (90.43)	8 (8.51)	1 (1.06)	--	94 (100.0)	0.44
Comb Making	27 (79.41)	4 (11.76)	3 (8.82)	--	34 (100.0)	0.69
Others	30 (88.24)	3 (8.82)	1 (2.94)	--	34 (100.0)	0.53
Total	923 (84.60)	143 (13.11)	20 (1.83)	2 (0.18)	1091 (100.0)	0.60

Contribution of Income by Sources

Contribution of different sources in the income of households has been estimated further so as to look into the situation emerging in terms of the significance of adopting different industrial activities at the household level in rural areas. The analysis depicts that various non-farm activities together have been farming more cognitive and important sources of income generation as compared to farm sector including animal husbandry in each industrial categories of households. Among different sources the contribution of income generated from adopting rural industrial activities alone has been estimated as high as over 34 per cent in the total income of industrial households while the contribution from agricultural operations and animal husbandry together accounted for a little over 22 per cent. Income earned through wage-paid-employment by way of engaging their family

generation after rural industrial sector if we examine the pattern of contribution of income from different non-farm sector employment in the industrial households. Other sources of income generation of industrial households included as household based business and trading activities, remittances being received from the migrants family members, pension derived by retired individuals and other sources such as income earned through professional services etc. which contribution together is estimated to be around 27 per cent

Table 3.3: **Contribution of Income from Different Sources in the Households**

(Per Household income in Rs.)

Type of Unit	Agri- culture	Animal Husbandry	Business	Household Industry	Labour	Remit- tances	Services	Pension	Others	Total
Woollen Textiles	2371 (7.17)	2256 (6.83)	4328 (13.10)	6541 (19.79)	4699 (14.22)	1512 (4.57)	8355 (25.28)	2419 (7.32)	569 (1.72)	33051 (100.0)
Mating & Basketry	2659 (11.39)	3012 (12.91)	466 (1.99)	6114 (26.20)	5166 (22.14)	884 (3.79)	2715 (11.63)	1757 (7.53)	566 (2.42)	23337 (100.0)
Carpentry	1921 (8.59)	2345 (10.49)	43 (0.19)	14596 (65.26)	1984 (8.87)	511 (2.28)	776 (3.47)	189 (0.85)	--	22364 (100.0)
Blacksmithy	1700 (9.48)	2141 (11.94)	441 (2.46)	7637 (42.60)	3783 (21.10)	1081 (6.03)	1035 (5.77)	260 (1.45)	244 (1.36)	17928 (100.0)
Rope Making	3750 (16.08)	3201 (13.72)	810 (3.47)	4147 (17.78)	6184 (26.51)	537 (2.30)	3185 (13.65)	1340 (5.74)	172 (0.74)	23325 (100.0)
Flour Mill	5377 (19.95)	2647 (9.82)	563 (2.09)	13516 (50.16)	572 (2.13)	955 (3.54)	1114 (4.13)	2096 (7.78)	107 (0.40)	26948 (100.0)
Tailoring	1499 (7.65)	2218 (11.33)	306 (1.56)	11748 (59.99)	1569 (8.01)	713 (3.64)	1319 (6.74)	50 (0.26)	160 (0.82)	19582 (100.0)
Comb Making	3774 (7.65)	4421 (19.21)	882 (3.83)	5518 (23.97)	7418 (32.23)	265 (1.15)	--	741 (3.22)	--	23018 (100.0)
Others	2372 (8.89)	1606 (6.02)	2603 (9.76)	11895 (44.59)	2303 (8.63)	147 (0.55)	1059 (3.97)	3741 (14.03)	950 (3.56)	26675 (100.0)
Total	2628 (10.96)	2643 (11.03)	1068 (4.46)	8200 (34.21)	4097 (17.09)	851 (3.55)	2844 (11.87)	1307 (5.45)	330 (1.38)	23969 (100.0)

in the gross income of the households. The contribution of agriculture and allied activities consisted relatively at large level in the households which are engaged in comb making (35.60 per cent) followed by around 30 per cent each in rope making and flour mills as

compared to 14 per cent each in the households of woollen and repairing and servicing enterprises. Similarly, the contribution of rural industrial enterprises has been noted as high as over 65 per cent in the carpentry households followed by 60 per cent in tailoring, 50 per cent in flour mills and 45 per cent in repairing and servicing households while the households engaged in woollen as well as rope making enterprises are in a position to get contributed merely around 20 per cent share of income from their concerned activity in their households while a major part of income is being originated from wage-paid-employment in case of former groups of households and through engaging of family work force in government services in case of latter groups of households.

Socio-Economic Characteristics

The economic condition of industrial households seems to be rather satisfactory, in the sense that the per household annual income being generated from all sources together has been estimated to the extent of Rs.23.97 thousand, though it varied among the households engaged in different product groups of enterprise. It is highest at Rs.33.05 thousand for woollen households followed by Rs.26.94 thousand for households of flour mills and lowest at Rs.17.93 thousand for blacksmithy households. Also, per household income generated alone from undertaking industrial activities accounted quite high at 8.20 thousand, even it has been reported as high as Rs.14.60 thousand in undertaking carpentry activity closely followed at Rs.13.52 for flour mills while lowest level of income can be derived in operating traditional activities, especially woollen, matting and basketry, rope making, comb making and blacksmithy. Income earned thorough wage-paid employment seems to be the second most source after engaging in rural industrial enterprises of the households, accounting per household income of Rs.4.10 thousand. On the other, per household income generated from agricultural activities has been noted

fairly at lower level as compared to services and animal husbandry, in addition to rural industries and wage-paid employment. In fact per household income originated from agricultural activities accounts for over two and half folds less than engaging in rural industrial enterprises and 55.90 per cent in wage-paid employment. In this sense, expansion of various product groups of rural industrial enterprises, especially which establishment have been possessing certain area specific comparative advantages and opportunities in different geographical locations could be a most important option for overcoming the emerging challenges of un-employment and poverty and thus sustaining the livelihood situation of rural households in hilly and mountain areas of the state.

Table 3.4: **Demographic Characteristics**

Type of Unit	Size of Family	Sex Ratio	Literacy Rates	Work-Participation Rates
Woollen Textiles	5	868	77.83	51.58
Mating & Basketry	5	870	66.99	51.07
Carpentry	5	883	74.80	44.06
Blacksmithy	5	844	73.37	51.60
Rope Making	5	803	72.96	51.78
Flour Mill	5	851	84.90	45.30
Tailoring	5	853	79.35	47.52
Comb Making	6	874	61.66	49.74
Others	5	896	74.18	42.85
Total	5	857	73.28	49.54

Considering into account the demographic feature of industrial households in sample areas the study finds that in the total population of 5805 the proportion of men and women population stands 3128 and 2677, accounting the ratio of 54 per cent and 46 per cent respectively. Sex ratio has been estimated at 857 which marginally varied in case of households engaged in performing different product groups of industrial activities. It is highest at 896 for households engaged in repairing and servicing enterprises and lowest at 803 for those are engaged in rope making enterprises. The family size of almost the industrial groups of households, excepting comb making, enterprises, comprises of a standard size of 5 members

Initiating the establishment of different types of rural industrial enterprises and in different stages of production processes and marketing of products do not required any highly skilled and educated man power. Even then it is generally expected that better educated individuals should be more efficient in handling the properly functioning of their enterprises. Also the educated labourforce should be more productive and efficient over the un-educated labourforce in the economic interest of an enterprise. At the same time it is generally believed that the educational attainment is a major factor facilitating to a shift of work force from subsistence type of agriculture to more productive industrial enterprises in rural areas. While considering the prevailing literacy level among the family member of industrial households, including the present entrepreneurs, the study finds a very high proportion of over 73 per cent population of industrial households have been processing at least some level of education. However, the percentage of literate population varied to the extent of nearly 85 per cent in the households which are engaged in flour mills to lowest at 66 per cent of comb making households.

The work-participation rates in almost the hilly and mountainous regions in the country has been generally recognized significantly at higher level as compared to regions with plain areas. Similar is the situation emerging in case of our sample areas where nearly half of the population is engaged in different economic activities for their livelihood. In fact the work-participation rates among women has also been stated to be as higher at 38.14 per cent, much higher than the national average. It has been further noted that relatively small size of land available for cultivation with the non-farm households especially with industrial households is compelling their maximum numbers of working age group of population, including which are availing education, to participate in their household based farm and non-farm activities and also in locally available wage-paid-employment. Among the different industrial households, the work participation rate has been marginally varying, through it has been found relatively higher in the households which are engaged in traditional types of rural industries as compared to

non-traditional rural industrial enterprises. In the households which are engaged in the woollen, mating and basketry, blacksmithy and rope making enterprises it touches the mark of over 51 per cent while the same is lowest at around 43 per cent in the repairing and servicing industrial households.

Table 3.5: **Educational Characteristics of the Family Members**

Type of Unit	Illiterate	Below Primary	Middle	Secondary	Higher	All Members
Woollen Textiles	196 (22.18)	205 (23.19)	277 (31.33)	157 (17.76)	49 (5.54)	884 (100.0)
Mating & Basketry	479 (33.01)	416 (28.67)	453 (31.22)	96 (6.62)	7 (0.48)	1451 (100.0)
Carpentry	187 (25.20)	215 (28.98)	273 (36.79)	61 (8.22)	6 (0.81)	742 (100.0)
Blacksmithy	192 (26.63)	205 (28.43)	270 (37.45)	51 (7.07)	3 (0.42)	721 (100.0)
Rope Making	235 (27.04)	221 (25.43)	303 (34.87)	94 (10.82)	16 (1.84)	869 (100.0)
Flour Mill	45 (15.10)	46 (15.44)	93 (31.21)	86 (28.85)	28 (9.40)	298 (100.0)
Tailoring	96 (20.65)	99 (21.29)	189 (40.64)	79 (16.99)	2 (0.43)	465 (100.0)
Comb Making	74 (38.34)	50 (25.90)	56 (29.02)	13 (6.74)	--	193 (100.0)
Others	47 (25.82)	34 (18.68)	66 (36.26)	26 (14.29)	9 (4.95)	182 (100.0)
Total	1551 (26.72)	1491 (25.68)	1980 (34.11)	663 (11.42)	120 (2.07)	5805 (100.0)

Dealing with analyzing the educational characteristics of the family members of industrial households it revealed that the proportion of illiterates constitutes around one fourth of population, though it is highest at over 38 per cent in the comb making households, closely followed by 33 per cent in mating and basketry households while at lowest proportion of a little over 15 per cent in the households engaged in flour mills. However, a highest proportion of population of industrial households is found possessing the middle level of education (34.11 per cent) followed by nearly 26 per cent primary level of education and 12 per cent secondary level of education and a lowest proportion of 2 per cent of them have attained higher level of

education. The population with higher level of educational attainment is seen mainly in the households which are engaged in non-traditional rural industrial enterprises. Thus it appears that the younger generation in the industrial households is better educated. As out of 27 per cent illiterates, around 12 per cent of them are in the category of child and a little over 6 per cent are the present entrepreneurs of rural industries. If the participation of such a large proportion of educated members of industrial households to be continued in the operation of various industrial categories there is no doubt that the expansion of rural industrial activities and their productivity will favourably be expanded up in the future.

Table 3.6: **Activity Status of the Family Members**

Type of Unit	Activity status								Average size of family
	Child	Student	Housewife	Working	Un-employed	Retired	Others	Total	
Woollen Textiles	89 (10.07)	309 (34.96)	14 (1.58)	456 (51.58)	1 (0.11)	10 (1.13)	5 (0.57)	884 (100.0)	5.33
Mating & Basketry	197 (13.58)	429 (29.57)	46 (3.16)	741 (51.07)	10 (0.69)	21 (1.45)	7 (0.48)	1451 (100.0)	5.42
Carpentry	96 (12.94)	264 (35.58)	39 (5.26)	327 (44.06)	2 (0.27)	12 (1.62)	2 (0.27)	742 (100.0)	5.26
Blacksmithy	80 (11.10)	223 (30.93)	35 (4.85)	372 (51.60)	4 (0.55)	6 (0.83)	1 (0.14)	721 (100.0)	5.30
Rope Making	107 (12.31)	265 (30.49)	33 (3.80)	450 (51.78)	3 (0.35)	10 (1.15)	1 (0.12)	869 (100.0)	5.36
Flour Mill	22 (7.38)	107 (35.91)	25 (8.39)	135 (45.30)	4 (1.34)	4 (1.34)	1 (0.34)	298 (100.0)	5.32
Tailoring	57 (12.26)	152 (32.69)	27 (5.81)	221 (47.52)	2 (0.43)	6 (1.29)	--	465 (100.0)	4.95
Comb Making	22 (11.40)	62 (32.13)	5 (2.59)	96 (49.74)	3 (1.55)	4 (2.07)	1 (0.52)	193 (100.0)	5.68
Others	23 (12.64)	54 (29.67)	21 (11.54)	78 (42.85)	--	6 (3.30)	--	182 (100.0)	5.35
Total	693 (11.94)	1865 (32.13)	245 (4.22)	2876 (49.54)	29 (0.50)	79 (1.36)	18 (0.31)	5805 (100.0)	5.32

Considering into account the activity status of the members of industrial enterprises the study revealed that a major proportion of population is activity engaged in different economic activities. The women workforce have been equally performing different

economic activities along with their men counterpart. Even in certain activities of farming sector the participation of women have been visualized significantly higher than the men workers. Un-employment rates have been estimated at a very lower level of below one per cent point concerning to almost the categories of industrial households excepting the households engaged in comb making and flour mills. Even the proportion of women folk which are not participating with any economic activity and concentrating in undertaking household related activities, looking after their children and old family members accounted for only 4.22 per cent, though the proportion of such women varied highest from around 12 per cent to lowest at 2 per cent in cases of households operating repairing and servicing enterprises and woollen enterprises respectively.

Occupational Structure of Employment

Based on principal occupational characteristics of the family members of different industrial enterprises the analysis presented in table 3.8 reveals that of the 2876 working family members a very high proportion of around 41 per cent of them are engaged in their households based industrial activities with making concerned activity as the principle occupation of employment. Among the different types of industrial enterprises the concentration of family work force seems to be as high as around 61 per cent among those are engaged woollen activities followed by 53 per cent in carpentry and a little over 50 per cent each in tailoring and repairing and servicing enterprises. Animal husbandry seems to be the second most primary source of employment in which a little over 22 per cent workforce has been confined, though the proportion of work force engaged in it accounted relatively higher among the households which are undertaking traditional household industrial activities, as compared to non-traditional industries. Inability of farming sector to employ rural work force gainfully has been well visualized by the fact that only around 19

per cent of work force have been making different occupations available in farming as their principle source of employment and earnings. Even the proportion of such work force reaches as low as 5 per cent and 13 per cent which belongs to the households of woollen and repairing and servicing enterprises respectively.

Table 3.7: **Occupational Characteristics of the Working Family Members**
(Primary Occupation)

Type of Unit	Cultivator	Labour	Service	Business	Household Industry	Animal Husbandry	Others	Total
Woollen Textiles	25 (5.49)	33 (7.24)	24 (5.27)	43 (9.43)	278 (60.95)	50 (10.96)	3 (0.66)	456 (100.0)
Mating & Basketry	156 (21.06)	121 (16.33)	23 (3.11)	10 (1.35)	246 (33.20)	180 (24.29)	5 (0.66)	741 (100.0)
Carpentry	47 (14.38)	18 (5.50)	4 (1.22)	1 (0.31)	174 (53.21)	83 (25.38)	--	327 (100.0)
Blacksmithy	72 (19.35)	53 (14.24)	6 (1.62)	1 (0.27)	149 (40.05)	88 (23.66)	3 (0.81)	372 (100.0)
Rope Making	140 (31.12)	83 (18.45)	15 (3.33)	9 (2.00)	89 (19.77)	114 (25.33)	--	450 (100.0)
Flour Mill	48 (35.56)	2 (1.48)	2 (1.48)	2 (1.48)	64 (47.41)	17 (12.59)	--	135 (100.0)
Tailoring	29 (13.12)	19 (8.60)	3 (1.36)	3 (1.36)	112 (50.68)	54 (24.43)	1 (0.45)	221 (100.0)
Comb Making	14 (14.58)	23 (23.96)	--	3 (3.13)	20 (19.79)	36 (37.50)	--	96 (100.0)
Others	10 (12.82)	11 (14.11)	1 (1.28)	4 (5.13)	39 (50.00)	11 (14.10)	2 (2.56)	78 (100.0)
Total	541 (18.89)	363 (12.62)	78 (2.72)	76 (2.64)	1171 (40.68)	633 (22.01)	14 (0.58)	2876 (100.0)

Further the analysis depicts that increasingly lacking productive employment opportunities have been forcing the rural work force to undertake a number of jobs simultaneously during a year. This arguments are well supported by our sample data that of the 2876 work force, an over whelming majority of 93.25 per cent of them have been undertaking more than one occupation during a year. Even the rural household based industrial activities have been indicated hardly providing sufficient income and employment opportunities. Therefore, a little over 13 per cent of work force is making their household industries as the secondary source of livelihood. Among them the proportion of work force

engaged in the activities of flour mills accounted as high as around 28 per cent followed by 21 per cent in comb making enterprises. A more surprising facts are also that the proportion of rural workforce which are making agriculture and animal husbandry sectors as their secondary source of employment and income are fairly much higher than the proportion of workers which are making concerned activities as their principle source of employment and income. This trend shows the extent to which these well-known major

Table 3.8: **Number of Workers by Type of Secondary Occupation**

Type of Unit	Cultivator	Labour	Service	Business	Household Industry	Animal Husbandry	Others	All
Woollen Textiles	242 (52.73)	13 (2.84)	--	1 (0.22)	56 (12.19)	145 (31.58)	2 (0.44)	459 (100.0)
Mating & Basketry	341 (43.32)	53 (6.73)	--	1 (0.13)	124 (15.76)	266 (33.80)	2 (0.26)	787 (100.0)
Carpentry	172 (62.54)	18 (6.55)	--	--	12 (4.37)	73 (26.54)	--	275 (100.0)
Blacksmithy	189 (56.93)	30 (9.04)	--	--	25 (7.53)	83 (25.00)	5 (1.50)	332 (100.0)
Rope Making	164 (39.04)	17 (4.05)	--	1 (0.23)	82 (19.53)	141 (33.57)	15 (3.58)	420 (100.0)
Flour Mill	58 (52.25)	--	--	1 (0.900)	31 (27.92)	18 (16.22)	3 (2.71)	111 (100.0)
Tailoring	103 (65.60)	5 (3.19)	1 (0.63)	--	3 (1.91)	41 (26.12)	4 (2.05)	157 (100.0)
Comb Making	55 (51.89)	2 (1.88)	--	--	22 (20.76)	27 (25.47)	--	106 (100.0)
Others	18 (51.42)	2 (5.72)	--	--	2 (5.72)	12 (34.29)	1 (2.85)	35 (100.0)
Total	1342 (50.04)	140 (5.20)	1 (0.04)	4 (0.15)	357 (13.31)	806 (30.06)	32 (1.20)	2682 (100.0)

economic sectors in rural areas of Uttaranchal have been productively employing the rural work force. If we divert our hypothesis on assessing the overall contribution of various product groups of rural industrial enterprises in terms of providing employment and income opportunities without accounting or neglecting aside the manner in which the work force is engaged in these activities it is well evident that the rural industrial enterprises have been

areas; in spite of the fact that a majority of work force have been making them as the principle source of employment and income generation.

Table 3.9: **Percentage Distribution of Working Family Members by Number of Jobs Undertaking**

Type of Unit	Workers by Number of Jobs Undertaking					
	One	Two	Three	Four & Above	No. of Workers	Per Worker No. of Job
Woollen Textiles	20.13	42.77	35.85	1.26	100.0 (456)	1.33
Mating & Basketry	16.79	53.97	25.81	3.43	100.0 (741)	2.14
Carpentry	20.27	59.46	17.57	2.70	100.0 (327)	2.02
Blacksmithy	17.43	55.05	22.02	5.50	100.0 (372)	2.13
Rope Making	19.69	56.25	19.69	4.38	100.0 (450)	2.08
Flour Mill	21.28	57.45	21.28	--	100.0 (135)	2.00
Tailoring	38.64	46.59	13.64	1.13	100.0 (221)	1.77
Comb Making	13.25	53.01	27.71	6.02	100.0 (096)	1.44
Others	44.44	40.00	13.33	2.22	100.0 (078)	1.73
Total	20.09	52.16	24.59	3.15	100.0 (2876)	2.06

Note: Figures in bracket indicate the actual number of workers.

Moreover, average numbers of job being undertaken by the working family members of the industrial enterprises during a year period has been over two which marginally varied for workers belonging to different industrial households. It further revealed that around 28 per cent of the workers have to perform more than three jobs for maintaining their livelihood; even then most of them do not find employment opportunities for through out the year. In fact a little over 3 per cent work force has been moving into more than four occupations during a year period. The proportions of such work force are relatively highest in the comb making households (6.02 per cent) followed by 5.50 per cent in blacksmithy and 4.38 per cent in rope making households. Only a little over 20 per cent of the work force comprising a highest proportion among repairing and servicing (44.44 per cent) followed by 39 per cent tailoring and lowest proportion of 13 per cent among comb making households have been engaging only in a single occupation. Though over half of the percentage of work force have been moving into two occupational structure of

employment during a year; though among them the proportions ranges below 50 per cent marks in case of work force belonging to tailoring, woollen, repairing and servicing industrial groups of households. Thus, the concerned exercise indicates the fact that the working members of rural industrial households have to depend on a numbers of occupational structures of employment besides equally participating in the different stages of the operations of their own household based industrial enterprise.

Table 3.10: **Per Worker Income Generation Pattern from Different Economic Activities**

(Per Worker Earnings in Rs.)

Type of Unit	Agri-culture	Animal Husbandry	Household Industry	Service	Labour	Business	Others	Total
Woollen Textiles	1474	1920	3250	57789	16957	16328	18900	5996
Mating & Basketry	1434	1810	4428	31630	7957	11345	21650	4093
Carpentry	1237	2120	11065	27350	5168	6000	--	5238
Blacksmithy	886	1703	5970	23467	6199	6000	4150	3463
Rope Making	1999	2033	3929	34400	10018	13120	1860	4343
Flour Mill	2841	4236	7967	31200	16000	10500	2000	5134
Tailoring	1068	2194	9602	31000	6145	9600	3000	4869
Comb Making	1859	2386	4467	--	10088	10000	--	3874
Others	2880	2374	9864	36000	6023	22125	10767	8026
Total	1522	2004	5855	39279	8888	14566	7836	4705

Earning Structure

In spite the working members of industrial households do engage in a number of jobs, their annual earnings averages to the extent of Rs.4705 only, though the workers of non-traditional households have been generating sizably higher amount of income as compared to traditional household industries. As the per worker annual earnings have been estimated to the highest level of Rs.8026 and Rs.6134 for worker belonging to repairing and servicing and four milling households respectively while the earnings of workers confined in blacksmithy have been generating a lowest amounts of Rs.3463 in comparison to workers of remaining industrial households. The average amount of income being originated by workers engaged in business related enterprises accounted highest at Rs.14566 followed by those are engaged in different

wage-paid-employment (Rs.8888), professional services (Rs.7836) and rural industrial enterprises (Rs.5855). And a lowest level of Rs.1522 per worker earnings comprises from engaging in different agricultural occupations. In fact, the workers of almost the product groups of industrial households are indicated to have been generating lowest amounts of income through engaging in employment available in agricultural sector as compared to remaining, economic sectors. Even the work force engaged in different agricultural employment have been deriving around 32 per cent less income as compared to the work force in animal husbandry and merely three folds lower level of income as compared to what the workers have been generating through engaging in rural industrial enterprises. In all the level

Table 3.11: **Distribution of Workers by Size of Earnings from Primary Occupation**

Type of Unit	Size of Earnings by Workers (in Rs.)						Per Worker Earnings
	Below 2000	2000-3000	3000-4000	4000-5000	5000 & Above	Total Workers	
Woollen Textiles	114 (25.00)	88 (19.30)	50 (10.97)	39 (8.55)	165 (36.18)	456 (100.0)	8713
Mating & Basketry	215 (29.01)	119 (16.05)	79 (10.66)	56 (7.56)	272 (36.71)	741 (100.0)	5594
Carpentry	87 (26.61)	29 (8.87)	23 (7.03)	8 (2.45)	180 (55.45)	327 (100.0)	8000
Blacksmithy	130 (34.95)	43 (11.56)	30 (8.06)	25 (6.72)	144 (38.71)	372 (100.0)	4672
Rope Making	102 (22.67)	90 (20.00)	73 (16.22)	42 (9.33)	143 (31.78)	450 (100.0)	6072
Flour Mill	33 (24.44)	13 (9.63)	10 (7.41)	4 (2.96)	75 (55.56)	135 (100.0)	7723
Tailoring	54 (24.43)	18 (8.14)	16 (7.24)	18 (8.14)	115 (52.04)	221 (100.0)	7221
Comb Making	13 (13.54)	17 (17.70)	16 (16.67)	13 (13.54)	37 (38.54)	96 (100.0)	5872
Others	9 (11.54)	9 (11.54)	8 (10.26)	3 (3.85)	49 (62.82)	78 (100.0)	8428
Total	757 (26.32)	426 (14.81)	305 (10.60)	208 (7.23)	1180 (41.03)	2876 (100.0)	6629

of productivity per worker in almost the economic activities, especially in agricultural sector seems to be rather low. Emerging inability of farm sector to provide sufficient income for

been indicated either moving into wage-paid occupational structure of employment or initiating to establish trading and rural industrial activities in large.

Despite undertaking a number of jobs the principal occupation of the rural work force has been providing merely Rs.6627 incomes annually. Even a little over one fourth proportion of workers engaged in different sector of employment have been generating only less than Rs.2000 annually. Among them the proportions of workers have been indicated relatively larger in case of those belonging to traditional households based industrial enterprises as compared to non-traditional enterprise. Obviously, due to relatively higher income generation capacity persisting in engaging in modern and non-traditional enterprises, a large proportion of their household members have adopted concerned activities as a principle source of employment. Per worker annual income of over 50 per cent of workers of these industrial households has been estimated in the range of over Rs.5000. On the other, the proportions of work force among the tradition groups of household industrial enterprises who have been earning above Rs.5000 annually from engaging different occupations, including in their own household enterprises are revealed ranging between 32 per cent to 39 per cent only.

The primary occupation have been visualized providing fairly a much higher income per workers as compared to together of various secondary occupations of the workforce of almost the industrial households. As the differences in per worker earning in favour of primary occupation has been revealed over three folds higher; even it stand as high as over five folds higher for work force belonging to carpentry industrial households followed by four and a half folds for woollen though it is lowest at two and half folds for workers of repairing and service sector industrial households. In all, despite of undertaking over three occupations simultaneously as secondary source of income the work force is in a position to generate merely Rs.1764 amounts of earnings from all occupations together during a whole year period. The extent of per worker earnings from secondary occupations varied

lowest from Rs.1103 for workers belonging to tailoring households to highest at Rs.3354 for workers of repairing and servicing industrial households. Further the analysis depicts that a overwhelming majority of over 72 per cent workers have been generating a very low amount of earnings of below Rs.2000 annually from secondary occupations. Even the proportion of workers generating respective amount of income have been reported as high as nearly 88 per cent and over 82 per cent who belong to tailoring and blacksmithy industrial households respectively. But, at the same time nearly 7 per cent of the work force, comprising a highest proportion of 20 per cent who belong to repairing and servicing industrial households followed by 10 per cent workforce of each comb making and flour mills have been originating the income of over Rs.5000 from undertaking various secondary occupations.

Table 3.12: **Distribution of Workers by Size of Earnings from Secondary Occupation**

Type of Unit	Size of Earnings by Workers (in Rs.)						Per Worker Earnings
	Below 2000	2000-3000	3000-4000	4000-5000	5000 & Above	Total Workers	
Woollen Textiles	311 (67.76)	63 (13.73)	30 (6.54)	15 (3.27)	40 (8.71)	459 (100.0)	1875
Mating & Basketry	554 (70.39)	90 (11.43)	48 (6.10)	39 (4.96)	56 (7.12)	787 (100.0)	1780
Carpentry	208 (75.37)	33 (12.00)	8 (2.91)	6 (2.18)	20 (7.27)	275 (100.0)	1594
Blacksmithy	273 (82.23)	18 (5.42)	13 (3.92)	9 (2.71)	19 (5.72)	332 (100.0)	1559
Rope Making	296 (70.48)	61 (14.52)	29 (6.90)	19 (4.52)	15 (3.57)	420 (100.0)	1767
Flour Mill	72 (64.86)	12 (10.81)	3 (2.70)	12 (10.81)	12 (10.81)	111 (100.0)	2662
Tailoring	138 (87.90)	12 (7.64)	5 (3.18)	--	2 (1.27)	157 (100.0)	1103
Comb Making	64 (60.38)	22 (20.75)	5 (4.71)	4 (3.77)	11 (10.38)	106 (100.0)	1743
Others	20 (57.14)	5 (14.29)	1 (2.86)	2 (5.71)	7 (20.00)	35 (100.0)	3354
Total	1938 (72.26)	316 (11.78)	142 (5.29)	106 (3.95)	182 (6.79)	2682 (100.0)	1764

In all the structure of participation of workforce in different occupations available in various economic sectors and also in undertaking certain rural industrial or other economic activities have been more or less directly related with the potential and level of income generation pattern of the concerned occupations and the economic sectors. However, the participation of rural households in the expansion of industrial activities has not revealed very encouraging but the proportion of labourforce engaged on them have been noted quite significant. This proportion is also quite high if its comparison is undertaken in terms of the participation of rural to labourforce in remaining economic sectors, especially in farm sector in which the proportion of work force has shown a declining trend during the recent part. But on

Table 3.13: **Structure of Employment**

Type of Unit	Total Workers Employed									Per Unit size of Employ- ment
	Unpaid Family Workers			Paid Workers			All Workers			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Woollen Textiles	139 (41.61)	195 (58.38)	334 (100.0)	3 (100.0)	--	3 (100.0)	142 (42.14)	195 (57.86)	337 (100.0)	2.03
Mating & Basketry	279 (75.40)	91 (24.60)	370 (100.0)	11 (100.0)	--	11 (100.0)	290 (76.12)	91 (23.88)	381 (100.0)	1.42
Carpentry	184 (98.92)	2 (1.08)	186 (100.0)	24 (100.0)	--	24 (100.0)	208 (99.05)	2 (0.95)	210 (100.0)	1.49
Blacksmithy	157 (90.23)	17 (9.73)	174 (100.0)	4 (100.0)	--	4 (100.0)	161 (90.45)	17 (9.55)	178 (100.0)	1.31
Rope Making	153 (89.47)	18 (10.53)	171 (100.0)	3 (100.0)	--	3 (100.0)	156 (89.65)	18 (10.34)	174 (100.0)	1.07
Flour Mill	90 (94.74)	5 (5.26)	95 (100.0)	7 (100.0)	--	7 (100.0)	97 (95.10)	5 (4.90)	102 (100.0)	1.82
Tailoring	99 (86.09)	16 (13.91)	116 (100.0)	9 (100.0)	--	9 (100.0)	108 (87.10)	16 (12.90)	124 (100.0)	1.32
Comb Making	38 (90.48)	4 (9.52)	42 (100.0)	--	--	--	38 (90.48)	4 (9.52)	42 (100.0)	1.24
Others	38 (92.68)	3 (7.32)	41 (100.0)	13 (100.0)	--	13 (100.0)	51 (94.44)	3 (5.56)	54 (100.0)	1.59
Total	1177 (77.03)	351 (22.97)	1528 (100.0)	74 (100.0)	--	74 (100.0)	1270 (79.28)	352 (21.97)	1602 (100.0)	1.47

the whole, it is expected that despite a considerable declining trend revealed in the overall participation of rural households in the expansion of different rural industrial enterprises,

especially traditional categories of enterprises, the expansion of potential and niche based product groups of industrial enterprises shall continue, even it could boost up at a certain level in the future. Since the analysis presented in preceding part depicted that due to non-availability of employment opportunities the rural young generation have been increasingly opting to establish various rural industrial enterprises. Even a significant proportion of present entrepreneurs of different enterprises, especially of non-traditional enterprises have joined or started their concerned enterprises very recently.

The importance of undertaking industrial activities has been well visualized both in terms of providing employment opportunities as well as in contributing income for the households engaged in them. In comparison to different economic sectors, including farm sector employment the proportion of labourforce engaged in almost the product groups of rural industrial enterprises together has been examined fairly much higher level. Even nearly half of the labourforce of industrial households are making them as the principle source of employment and income generation.

Analyzing the structure of employment independently in different product groups of enterprises the analysis further reveals that each category of industries have been engaging at least some proportion of hired labourer along with their family labourforce in the different stages of their operations. However the size of hired workers required in performing the industrial activities accounts to the extent of only 4.65 per cent of the total workforce engaged in them. Of the total workforce engaged in different rural industries the proportions of hired labourforce employed in non-traditional households revealed relatively at higher level than in traditional industries. In activities such as repairing and servicing the proportion of hired workers has been reported as high as over 24 per cent. Further the analysis reveals that both men and women labourforce have been equally participating in the activities of each of the industrial enterprises though the proportion of

men labourforce has been apparently leading to their women counterpart in undertaking the activities of each industrial activities, excepting the case of woollen industries in which the proportion of women labourforce accounts for 57.86 per cent as against 42.14 per cent for men. However, none of the industrial enterprises have been hiring any women labourforce on wage-paid employment basis. Among the total unpaid labourers the proportion of women employed in rural industrial activities revealed nearly 23 per cent, which is as high as over 58 per cent in undertaking woollen activities followed by 25 per cent in mating and basketry industries and a lowest proportion of a little over 1 per cent in carpentry industries. But in spite of higher labour absorption in relation to income derived, the rural industrial units, in fact, have a relatively small number of workers per unit. In the sample units as a whole, the average number of workers employed is 1.47, it is highest in undertaking woollen activities at 2.03 and remains almost less than 2 workers in remaining product groups of industrial enterprises; while it stands lowest at 1.07 workers in undertaking rope making activities.

Table 3.14: **Annual Mandays Employment Per Worker**

Type of Unit	No. of days								
	Unpaid Family Workers			Paid Workers			All Workers		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Woollen Textiles	169.41	178.15	161.09	13.33	--	13.33	166.11	178.15	159.94
Mating & Basketry	103.20	66.37	92.67	7.09	--	7.09	99.55	66.37	90.27
Carpentry	148.73	80.00	146.27	118.00	--	118.00	145.18	80.00	143.11
Blacksmithy	74.06	48.24	69.76	26.25	--	26.25	72.87	48.24	68.81
Rope Making	88.07	57.11	80.89	8.67	--	8.67	86.54	57.11	79.72
Flour Mill	167.87	110.00	166.10	245.71	--	245.71	173.22	110.00	171.41
Tailoring	207.19	166.88	199.48	203.11	--	203.11	206.89	166.88	199.72
Comb Making	75.82	70.33	73.69	--	--	--	206.89	166.88	199.72
Others	145.61	102.00	142.41	105.00	--	105.00	135.25	102.00	133.41
Total	127.58	132.30	129.02	108.03	--	108.03	126.44	132.30	128.28

Considering into account the pattern of providing per worker days of employment opportunities of rural industrial enterprises the analysis presented in table 3.14 highlights

that on an average a worker gets engaged in these activities for only 128 days during a year. But the surprising facts are that the women work force have been getting comparatively higher man days employment as compared to men, even than the proportions of women get engaged in these units are reported less than men. Annually non-traditional industries are noted providing fairly higher man days employment, reaching upto the level of 200 days as compared to traditional industries of between 160 days. The man days employment for men and women work force averages to 126 and 132 days respectively. Further the study finds that the rural industries have been providing relatively higher man days employment to its household labourforce as compared to hired labourers. However, all the non-traditional enterprises have been hiring paid workers for higher numbers of days as compared to engaging their household labourforce. Such pattern has not been appearing in case of traditional groups of rural industrial enterprises. In cases of unpaid family labourforce, the women have been again getting significantly higher man days employment for over 132 days as against nearly 128 days of men in a year. Thus the overall analysis gives an impression that the employment opportunities available in undertaking different product groups of rural industrial activities, especially tradition household based enterprises are for only shorter durations, but these employment opportunities are quite open for both men and women labourforce and to a certain extent for both the labourforce available in the industrial households as well as labourforce hired out on the basis of providing wages.

Further, analyzing the structure of per day average hours being devoted by the work force in undertaking different industrial activities it reveals that on an average a worker is getting involved in rural industrial employment for a little over to 5.30 hours in a day, though the workers employed in carpentry and tailoring have been working for relatively a larger duration of above 7 hours. In spite the fact that the women labourforce have been

finding relatively higher man days employment as compared to their men counterpart but the average hours of duration which the women have been devoting in undertaking rural industries have been reported significantly less than the men. This could largely be on account of a relatively higher duration of hours are usually devoted by women in undertaking certain household related activities as compared to men. In comparison to unpaid family labourers the hired labourers have been devoting significantly much higher in performing various industrial activities; their duration of work even exceeds to over 8 hours per day. In all, the contribution of different rural industrial activities, they either form household based traditional or non-traditional activities is highly prevalent in terms of both providing employment opportunities to the labourforce available in the industrial households as well as labourforce of other than industrial households. A significant importance of adopting concerned activities as compared to other economic activities have also been well witness in the sense of contributing a sizeable income for maintaining the

Table 3.15: **Average Hours of work Per day Per Workers**

Type of Unit	Average Hours of Work per day per Worker								
	Unpaid Family Workers			Paid Workers			All Workers		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Woollen Textiles	5.05	5.50	5.00	6.00	--	6.00	5.07	5.50	5.01
Mating & Basketry	5.26	4.10	5.20	7.50	--	7.50	5.35	4.10	5.40
Carpentry	7.10	1.00	7.00	7.45	--	7.45	7.40	1.00	7.40
Blacksmithy	4.43	3.00	4.20	8.00	--	8.00	4.45	3.00	4.27
Rope Making	5.25	4.56	5.10	7.33	--	7.33	5.02	4.56	5.10
Flour Mill	5.31	3.33	5.25	7.25	--	7.25	5.10	3.33	5.00
Tailoring	7.20	5.50	7.30	8.10	--	8.10	7.24	5.50	7.30
Comb Making	5.32	4.00	5.16	--	--	--	5.32	4.00	5.16
Others	6.16	1.00	5.39	7.32	--	7.32	6.06	1.00	6.26
Total	5.46	5.15	5.21	7.26	--	7.26	5.57	5.15	5.30

livelihood of the rural households. Though almost the rural industrial activities have been offering employment to both household and non-household hired labourforce but tending to use more household labours; however on a part time basis. Because their household

labour have been performing certain other household related activities together with engaging in their household based industrial activities.

Productivity and Profitability

An assessment into the productivity of rural industrial activities is of significance for various reasons. First, from the micro-economic point of view, it is important to know whether household based industry represents an efficient use of resources as compared to large scale and more mechanized modes of production, since this is an important factor affecting the expansion of rural industrial enterprises. Secondly it is important from the view point of policy making, whether different rural industrial activities represent, in principle, viable production opportunities or they are merely a sign of distress adaptation, representing basically very low income generating activities to which household only resort to when no other profitable employment opportunities are available. The most important question related to this is whether and to what extent the expansion of various product groups of rural industries could be a viable option as a strategy for the alleviation of rural poverty.

Table-3.16: **Productivity, Value Added and Net Earnings**

(in Rs.)

Type of Unit	Productivity		Value added		Net Earnings	
	Per Unit	Per Worker	Per Unit	Per Worker	Per Unit	Per Worker
Woollen Textiles	12326	6092	11347	5589	11303	5617
Mating & Basketry	7220	5079	7179	5050	7156	5183
Carpentry	26014	17467	24910	16725	23303	17665
Blacksmithy	11585	8851	10796	8249	10735	8390
Rope Making	4910	4571	4877	4541	4864	4608
Flour Mill	27816	15272	22410	12304	19960	11766
Tailoring	15391	11667	14334	10866	12779	10445
Comb Making	6932	5612	6844	5540	6844	5540
Others	46916	29540	44931	28290	41719	34596
Total	13623	9276	12952	8821	12366	8829

Note: (i) Value added = Value of output – operating cost, excluding wages of hired labour – Depreciation (10 per cent of value of machinery and equipment).

(ii) Net income = Value added – wages paid to hired labour.

(iii) Earnings per family worker = Net income per unit/family worker.

In the above highlighted context the analysis has further carried out to examine the significance of undertaking different industrial activities at the household level. The analysis presented in this regards in table 3.16 postulates that the labour productivity, more or less follows the order of output per enterprise but the differences in employment size are not much large for different rural industrial enterprises. The per worker productivity for all rural household industries together worked out to Rs.9.28 thousand and it ranged between the lowest of Rs.4.91 thousand for rope making followed by basketry and mating (Rs.5.08 thousand) to the highest at Rs.29.54 thousand for repairing and servicing activities. Similarly the average size of output per enterprise comes out to Rs.13.62 thousands which stands lowest at Rs.4.91 thousand again for rope making activities to highest at Rs.47.92 thousand for repairing and servicing enterprises.

Further it reveals that a significant level of differences also exist in the pattern of income generation in undertaking different industrial activities though a marginal extent of variation prevail between the level of per unit amount of income and value added being generated from different industries, because most rural industries are not hiring any worker and are running only through engaging the family work force. Similarly, with a very high raw material content which is basically obtained free of cost from local forests in cases of most rural industries, the per unit value added to output ratio turns out to be quite high (95 per cent); though it reaches fairly at low level in case of non-traditional enterprises, especially for repairing and servicing enterprises as compared to traditional enterprises. Due to differences in employment size, the ratio of value-added per worker to output for flour mills has reduced significantly at a much higher rate than for the remaining rural industries and it follows lowest at the extent of only 29 per cent for mating and basketry units.

Further, it has been recognized that due to lower level of absorption of hired labour in rural industrial activities the differences between value added and net income turn out to

be very low as compared to the differences in the ratio of value added and output. The ratio of per unit value added to net income for different product groups of industries together accounted for 95 per cent, though it varied largely among the cases of traditional and non-traditional industrial enterprises. As the corresponding ratio for traditional enterprises stand little over 99 per cent, even 100 per cent for enterprises such as comb making while it reaches the range of between 89 per cent to 93 per cent for non-traditional industrial enterprises. In all the value added and net income per unit accounted for Rs.12.95 thousand and Rs.12.37 thousand respectively.

Earning per household worker is estimated to be Rs.8.83 thousand with a extremely larger differences prevailing in the per worker earnings in different product groups of enterprise; especially among the workers engaged in non-traditional and traditional groups of enterprises. Among the various traditional rural industrial enterprises the average earnings of household workers accounted highest at Rs.17.67 thousand for those are engaged in carpentry industries to lowest at Rs.5.18 thousand for those are engaged in matting and basketry enterprises. On the other, the household workers engaged in non-traditional industrial units are in a position to earn a minimum range of Rs.10.45 thousand to the highest of Rs.34.60 thousand. In all, the amount of income per worker or per household generated together from farm and rural industrial activities seems to be sufficient to maintain the livelihood of rural households. If one takes the figure of Rs.14000/- per household per annum as the minimum to rise about the poverty line in rural areas, an income of Rs.8829 per family workers of a enterprise or Rs.12366 per enterprise in addition to around Rs.3000 per household as generated from agricultural activities would be considered as the minimum needed to enable a household to cross the absolute poverty line. Even the per household income being generated from undertaking non-traditional industrial activities should be considered much above the prescribed norm of

income per household for following above poverty line in rural areas. In this sense diversification of rural industrial activities through introducing market oriented goods and articles in the production system and bringing at least some improvements in the quality of the products would be an important instrumental measure in the context for increasing the average income of rural households.

CHAPTER-IV

STRUCTURE OF CAPITAL INVESTMENT, PRODUCTION, MARKETING AND RAW MATERIAL PROCUREMENT

The analysis in the preceding chapters has well depicted the significance of undertaking different product groups of rural industrial activities in terms of both engaging household labour force in different occupations and generating a sizeable amount of income. Lacking employment in different geographical areas of the state has been observed increasingly forcing the rural labour force including young generation either to opt the expansion of new form of rural industrial activities or to join their household based enterprises, even in a very low paid traditional form of household industrial activities. In this manner the study reaches in the conclusion that initiating planning for development of various potential rural industrial activities, which development is possessing certain areas specific advantages and opportunities and backward and forward linkages in perspective to natural development of different economic activities would be an important option for creating additional productive employment opportunities and the avenues of income in rural areas. In continuation of these underlined perceptions the study further attempts to examine the size of capital requirement for setting up of different categories of rural industrial enterprises, prevailing financial sources of investment to the units, use and adaptation of production technology, size of production and productivity and its future growth perspectives and challenges in achieving adequate size of production and productivity, emerging marketing network and arrangements and the sources and procurement pattern of various raw material of the industrial enterprises.

Otherwise the amount of per unit requirement of productive capital for establishing other than tailoring, flour mills, repairing and servicing units is averages to be as low as Rs.95 for rope making units to highest at Rs.3295 for woolen activities.

Table-4.1: **Structure of Capital Investment**

Type of Unit	Per Unit Average size of Capital Investment (in Rs.)		
	Initial	Present	Percentage increase
Woollen Textiles	3295	10112	209.92
Mating & Basketry	145	412	184.14
Carpentry	5817	11048	89.93
Blacksmithy	2183	7891	261.15
Rope Making	95	329	246.32
Flour Mill	39500	54063	37.87
Tailoring	7907	15534	96.45
Comb Making	323	878	171.83
Others	17978	19850	10.41
Total	3601	6712	86.39

It has further been pointed out that the industrial households make a little amount of investment in starting of rural industries through acquiring necessary machinery and other equipments and they continued to make additional investment on their enterprise through adding additional machinery and equipments, and even constructing separate work shed. This has been indicated by the fact that the average size of capital investment per unit, which was Rs.3601 at the starting of the units, it has presently jumped to Rs.6712, an increase of over 86 per cent. The pattern of investment during initial and post establishment period has increased to a fairly larger level of above two hundred points for each woolen and rope making enterprises and lowest at 10 per cent points for repairing and servicing industrial enterprises.

Capital Intensity

An important factor, which would determine the potential of employment generation, is the capital requirement for setting up of an enterprise (Islam 1987). Also the average size of output per industrial unit could be seen to be well related with the use of machinery and the mode of energy. However, setting up of a rural industrial enterprise requires a very low capital investment because the rural industries in many cases do not use a separate structure to house their equipments and tools to carry out the production of goods. A part of the residence of the proprietor is normally used for this purpose. Even when a separate structure is used it is usually built with mud and stones using largely family labour. Occasionally, hired labourers are used for specific construction activities, which cannot be performed by the family labourers. In fact, the machines and other equipments used in the production process are generally manufactured by the local artisan households themselves, in most cases by the industrial households.

The level of capital investment undertaken by the industrial households initially at the time of establishment of their different rural industries and the present value of capital available in the concerned industry is presented in table 4.1. The value of initial capital investment is inflated at current prices. The value of productive capital included as the value of land and building, machinery and equipments and working capital being used in undertaking industrial activity. The estimated capital requirement for setting up of a household based rural industry is found to be as low as Rs.3.60 thousand. Even this overall average has been inflated because of a fairly large amount of investment is required for establishing modern type of industrial enterprise such as flour mill (Rs.39.50 thousand) and servicing and repairing enterprises (Rs.17.98 thousand).

Table 4.2: **Head wise Capital Investment at the Initiation of Establishment Per Unit (in Rs.)**

Type of Unit	Head of Investment (Rs.)				
	Land	Building	Machinery & Equipment	Working capital	Total
Woollen Textiles	492 (14.93)	1653 (50.16)	728 (22.10)	422 (12.81)	3295 (100.0)
Mating & Basketry	--	--	59 (41.68)	86 (58.32)	145 (100.0)
Carpentry	284 (4.88)	2001 (34.38)	766 (13.17)	2766 (47.57)	5817 (100.0)
Blacksmithy	216 (9.89)	1112 (50.92)	400 (18.32)	455 (20.87)	2183 (100.0)
Rope Making	--	--	43 (45.39)	52 (54.61)	95 (100.0)
Flour Mill	1858 (4.70)	10667 (27.00)	22772 (57.65)	4203 (10.65)	39500 (100.0)
Tailoring	1142 (14.44)	3990 (50.45)	1864 (23.57)	911 (11.53)	7907 (100.0)
Comb Making	--	--	212 (65.61)	111 (34.39)	323 (100.0)
Others	712 (3.96)	8452 (47.02)	3426 (19.06)	5388 (29.96)	17978 (100.0)
Total	280 (7.78)	1403 (38.96)	1155 (32.07)	763 (21.19)	3601 (100.0)

Most of the traditional form of rural industrial activities such rope making, comb making, comb making and basketry and mating have no separate work shed for operating their activities, instead these activities had been operating in the residential houses of the industrial households. So they only require finances for maintaining machinery and equipment and expenses involved in procurement of raw material and hiring out of labourer to a little level. In spite of this the share of land and building together has been noted highest at around 46 per cent, as against 32 per cent for machinery and equipments and remaining 22 per cent for working capital in the aggregate invested capital of rural industries at the time of initiating the establishment of these industrial activities. It has also been pointed out further that the investment

pattern on every head of capital has been increased many folds higher ranging highest at 121 per cent in working capital to lowest at 43 per cent in land and building and 98 per cent in machinery and equipments. The increasing trend in different components of capital investment has been well visualized in case of each of the product groups of rural industrial enterprises with a marginal variations emerging in the increase of investment in machinery and equipments between the traditional form of household industries and modern non-traditional enterprise (Table-4.3).

Table 4.3: **Existing Head-wise Capital Investment**

(Per Unit in Rs.)

Type of Unit	Head of Capital Investment (Rs.)				
	Land	Building	Machinery & Equipment	Working Capital	Total
Woollen Textiles	1549 (15.17)	4200 (41.13)	3202 (31.36)	1261 (12.34)	10212 (100.0)
Mating & Basketry	--	--	160 (38.96)	252 (61.04)	412 (100.0)
Carpentry	809 (7.33)	3643 (32.98)	1321 (11.96)	5275 (47.13)	11048 (100.0)
Blacksmithy	666 (8.44)	3974 (50.35)	1202 (15.23)	2049 (25.98)	7891 (100.0)
Rope Making	--	--	183 (55.40)	146 (44.60)	329 (100.0)
Flour Mill	3180 (5.88)	16028 (29.65)	28427 (52.58)	6428 (11.89)	54063 (100.0)
Tailoring	1627 (12.02)	6919 (51.13)	3274 (24.14)	1714 (12.66)	15534 (100.0)
Comb Making	--	--	553 (62.96)	325 (37.04)	878 (100.0)
Others	1323 (6.13)	8600 (5.54)	4293 (24.36)	5634 (63.97)	19850 (100.0)
Total	119 (9.53)	1818 (34.21)	2088 (31.12)	1687 (25.14)	6712 (100.0)

A detail analysis has been further attempted to examine the productive efficiency and adequacy of presently installed machinery and equipments in different industrial enterprises. In this context the results presented in table 4.4 highlights that the

presently available machinery and equipments in almost the industrial enterprises is sufficient at least to run their units successfully and to meet out the local demands of their products. However, in nearly one-fourth proportions of enterprises, comprising over half of black smithy followed by one-third of rope making enterprises the installed machinery and equipments are even not sufficient for their properly functioning. Another a little over, one-third proportions of industrial households feel that they are not in a position to meet the emerging demands of their products. Among them, a highest proportion of households are engaged in comb making enterprises (59 per cent) followed by 48 per cent in repairing and servicing and 41 per cent in basketry enterprises (34 per cent).

Table-4.4: **Adequacy and Inadequacy of Present Machines and Equipments**

Type of Unit	(Percentage distribution of Enterprises)											
	Adequate to run the unit			Adequate to meet present demand			Adequate to maintain productive efficiency			Adequate to maintain the quality of product		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Woollen Textiles	86.32	13.68	100.0	72.65	27.35	100.0	60.68	39.32	100.0	39.32	60.68	100.0
Mating & Basketry	78.24	21.76	100.0	73.58	26.42	100.0	21.24	78.76	100.0	35.23	64.77	100.0
Carpentry	72.41	27.59	100.0	62.07	37.93	100.0	20.69	79.31	100.0	29.31	70.69	100.0
Blacksmithy	50.00	50.00	100.0	65.79	34.21	100.0	39.47	60.53	100.0	26.32	73.68	100.0
Rope Making	66.96	33.04	100.0	61.61	38.39	100.0	17.86	82.14	100.0	14.29	85.71	100.0
Flour Mill	77.78	22.22	100.0	66.67	33.33	100.0	11.11	88.89	100.0	5.56	94.44	100.0
Tailoring	71.79	28.21	100.0	58.97	41.03	100.0	25.64	74.36	100.0	48.42	51.28	100.0
Comb Making	86.21	13.79	100.0	41.38	58.62	100.0	31.03	68.97	100.0	20.69	79.31	100.0
Others	100.0	--	100.0	52.38	47.62	100.0	42.86	57.14	100.0	4.76	95.24	100.0
Total	76.16	23.84	100.0	66.40	33.60	100.0	30.24	69.76	100.0	29.44	70.56	100.0

Since an overwhelming majority of nearly 70 per cent industrial households have reported that the presently installed machinery and equipments in their enterprises tend to possess very low level of productive efficiency. Such complaints have been forwarded to the extent of 89 per cent and 82 per cent households who are engaged flour mills and rope making industrial activities respectively. Though in a very high proportion of nearly 61 per cent woollen followed by nearly 40 per cent black smithy industrial enterprises the presently

installed machinery and equipments are sufficient to maintain its productive efficiency. Generally the quality of goods and articles produced through indigenous mode of locally developed production technology by the rural industrial activities have been pronounced inferior as compared to similar goods and articles produced by modern industrial enterprise. Even our analysis is also presenting the similar results. That is in the sense that a fairly high proportion of around 71 per cent of industrial households themselves expressed the understanding that they are not in a position to maintain the production of relatively better quality goods with the use of presently installed machines and equipments in their industrial enterprises. Such households are even registered as higher as over 90 per cent among those are confined in operation of each flour mills and repairing and servicing activities followed by 86 present in rope making and a lowest proportion of a little over 51 per cent in tailoring activities.

Irrespective of the fact that most rural industrial activities have been undertaking at household level and largely engaging their household labour with a very low amount of capital investment a majority of around 59 per cent have been operating through using non-local manufactured machines and equipments in the production system. Among them the proportion of industrial activities are significantly higher in the non-traditional groups as compared to traditional households based activities. Even a very high proportion of traditional form of rural enterprises such as woollen and carpentry are also acquiring required machinery and equipments from out side villages; though almost the mating and basketry and rope making industrial activities have been purchasing their required machinery and equipments from the local artisans. In fact most of the machinery and equipments used in the production processes of almost the rural industries, accepting the case of four mills have been noted being manufactured by

Table-4.5: **Percentage Distribution of Industrial Households by the Origin of Machinery and Equipments Used in their Units**

(Percentage of Households)

Type of Unit	Origin of Machinery and Equipments				Average cost of machinery (Rs.)
	Local	Non-Local	Both	Total	
Woollen Textiles	11.97	82.05	5.98	166 (100.0)	3202
Mating & Basketry	50.90	23.05	26.05	268 (100.0)	159
Carpentry	2.17	86.52	11.30	141 (100.0)	1321
Blacksmithy	13.48	74.47	12.06	136 (100.0)	1202
Rope Making	65.63	13.19	13.19	162 (100.0)	183
Flour Mill	9.26	90.74	--	56 (100.0)	28428
Tailoring	2.56	89.74	7.69	94 (100.0)	3274
Comb Making	5.17	67.24	27.59	34 (100.0)	553
Others	13.21	81.13	5.66	34 (100.0)	5345
Total	26.56	58.73	14.70	1091 (100.0)	2088

Note: Figures in brackets indicate the total number of units.

local artisans as well as the manufacturers located out side concerned villages. As the production process of 15 per cent enterprises has been depending on the availability of required machinery and equipments both from local areas and non-local areas. The value of per unit machinery and equipments has been estimated to Rs.2088 which accounted significantly much higher in non-traditional enterprises ranging between Rs.28.43 thousand in flour mills to Rs.32.7 thousand in tailoring activities as compared to traditional industrial enterprises, ranging highest from Rs.3.20 thousand in woolen to lowest at Rs.159 in basketry and mating enterprises.

Financing of Enterprises

A significant proportions of 18.05 per cent industrial enterprises have indicated to have availed at least some financial assistance in the form of subsidy cum loan under the various ongoing self-employment programmes covered on the name of Integrated Rural Development Program, TYSEM, PMRY etc. for the purpose of purchasing machinery and equipments etc. However a majority of the units met their capital requirements from their own sources. In all a little over 18 per cent units, comprising a highest proportion among

woolen (49 per cent) followed by 33 per cent flour mills and 31 per cent tailoring units have borrowed funds mostly from institutional sources. However, none of the comb making and rope making units have availed any financial assistance from any institutional sources. The District Rural Development Agency, Block Development Office and Commercial Banks have been the major institutions, which have funded different industrial enterprises on the basis of subsidy cum loan. Fairly a highest proportion of industrial enterprises have availed financial facility from Block Development Office (76.24 per cent) followed by 16.82 per cent from District Rural Development Agency, 6 per cent from commercial banks and merely 1 per cent from other private institutions.

Table-4.6: **Financing of Enterprises and the Sources of Borrowings**

Type of Units	Percentage of Units Availed Financial Assistance			Sources of Availing Financial Assistance				
	Yes	No	Total	DRDA	Block	Bank	Others	Total
Woollen Textiles	48.72	41.28	100.0	19.30	80.70	--	--	100.0 (81)
Mating & Basketry	2.077	97.93	100.0	--	100.0	--	--	100.0 (06)
Carpentry	18.97	81.13	100.0	18.18	63.64	9.09	9.09	100.0 (27)
Blacksmithy	23.68	26.32	100.0	11.11	88.89	--	--	100.0 (32)
Rope Making	--	100.0	100.0	--	--	--	--	--
Flour Mill	33.33	66.67	100.0	16.67	--	83.33	--	100.0 (19)
Tailoring	30.77	69.23	100.0	16.67	83.33	--	--	100.0 (29)
Comb Making	--	100.0	100.0	--	--	--	--	--
Others	9.52	89.48	100.0	--	100.0	--	--	100.0 (03)
Total	18.15	83.85	100.0	16.83	76.24	5.94	0.99	100.0(197)

Note: Figures in brackets represent the actual number of units who availed financial facility.

In the total financial assistance availed by the industrial enterprises from different sources the proportion of loan accounted as higher as around 73 per cent as against 27 per cent as subsidy. The amount of financial assistance, loan cum subsidy per unit is estimated at Rs.12.82 thousand; which accounted highest at Rs.23.98 thousand for flour mills followed by Rs.15.96 for woolen units to lowest at Rs.4.40 thousand for black smithy. Amount of loan per unit is also estimated highest in case of

flourmills followed by woolen activities. Moreover, the proportion of financial assistance availed in the form of subsidy to total amount of finances received from different institutional sources accounted highest at 42 per cent in case of black smithy, closely followed by 41 per cent by mating and basketry enterprises and lowest at 2 per cent points by flour mills. In all, it is noted that credit not used very widely by the rural industrial units; excepting the case of non-traditional enterprises. In most of the cases

Table-4.7: **Per Unit Amount of Financial Assistance Availed**

(in Rs.)

Type of Units	Per Unit Borrowings/Financing		
	Loans	Subsidy	Total
Woollen Textiles	11387 (71.36)	4571 (28.64)	15958 (100.00)
Mating & Basketry	3250 (59.09)	2250 (40.91)	5500 (100.00)
Carpentry	4772 (70.33)	2013 (29.67)	6785 (100.00)
Blacksmithy	2556 (58.09)	1844 (41.91)	4400 (100.00)
Rope Making	--	--	--
Flour Mill	23483 (97.92)	500 (2.08)	23983 (100.00)
Tailoring	4191 (62.25)	2542 (37.75)	6733 (100.00)
Comb Making	--	--	--
Others	8000 (66.67)	4000 (33.33)	12000 (100.00)
Total	9354 (72.98)	3463 (27.02)	12817 (100.00)

of traditional industrial enterprises, which are being operated mainly by socially disadvantaged groups of population such as scheduled castes and scheduled tribes the credit facilities have availed largely to get the financial assistance in the form of subsidy under special component plans and other target group oriented schemes of the government which are introduced for SC and ST communities. Therefore, it becomes unclear whether the borrowings are related with the needs, potential and requirements of enterprises on a commercial basis.

Size of Output

Average size of output in different industrial enterprises is significantly related with the size of capital investment. Both, per unit size of capital investment, and size of output have been appreciably much higher in flour mills followed by repairing and servicing enterprises. On an average per unit size of annual output has been estimated to the tune of Rs.13.63 thousand; though over half of the industrial enterprises, largely traditional form of industries are in a position to undertake the output of Rs.10,000 annually. Moreover, a significant proportions of a little over 18 per cent industrial enterprises are seen generating the output valued to above Rs.20,000 annually. Among them the proportions stand fairly highest for flour mills (64 per cent) followed by 62 per cent repairing and servicing and 56 per cent carpentry enterprises. But the output of most of the traditional enterprises, especially comb making and rope making industries have been reaching the mark of Rs.2,000/- annually. But a significant proportion of 19 per cent woolen industries followed by 7 per cent black smithy industries have been originating the output of above Rs.20,000 annually. On the other, a highest proportions of units among tailoring (65 per cent) followed by 42 per cent black smithy are noted undertake their annual out put to the range of between Rs.10,000 and Rs.20,000.

Table-4.8: **Distribution of Industries by Size of Output**

(in Rs.)

Type of Units	Number of Units by Size of Output					Total	Average Production
	<5000	5000-10000	10000-15000	15000-20000	20000+		
Woollen Textiles	26 (15.66)	51 (30.72)	35 (21.08)	23 (13.86)	31 (18.68)	166 (100.0)	12368
Mating & Basketry	87 (32.46)	132 (49.25)	38 (14.18)	8 (2.99)	3 (1.12)	268 (100.0)	7220
Carpentry	--	13 (9.22)	21 (14.89)	28 (19.86)	79 (56.03)	141 (100.0)	26014
Blacksmithy	8 (5.88)	61 (44.85)	46 (33.82)	11 (8.09)	10 (7.36)	136 (100.0)	11585
Rope Making	92 (56.79)	62 (38.27)	7 (4.32)	1 (0.62)	--	162 (100.0)	4910
Flour Mill	1 (1.78)	8 (14.29)	4 (7.14)	7 (12.50)	36 (64.29)	56 (100.0)	27816
Tailoring	1 (1.06)	11 (11.70)	31 (32.98)	32 (34.04)	19 (20.21)	94 (100.0)	15391
Comb Making	16 (47.06)	14 (41.18)	4 (11.76)	--	--	34 (100.0)	6932
Others	1 (2.94)	8 (23.53)	3 (8.82)	1 (2.94)	21 (61.76)	34 (100.0)	46916
Total	232 (21.26)	360 (33.00)	189 (17.33)	111 (10.17)	199 (18.24)	1091 (100.0)	13623

Performance of different rural industries in terms of their productivity and in the pattern of deriving average per unit output is also well substantiated by the overall growth that has taken place in these activities during 1998 and 2004. Output measured as the constant 2004 prices, has risen by around 32 per cent, showing an annual growth of 5.26 per cent. A near tripling of output is achieved by black smithy followed by 43 per cent by repairing and servicing and 40 per cent by flour mills. Despite a very little amount of investment undertaken and in comparison to the level of gross value of productive capital has been increasing, the output per unit seems to be boosting up to a relatively higher level in almost the rural industries, excepting the case of tailoring, in which a significant declining trend has been visualized emerging during the recent past.

Table-4.9: **Per Unit Size of Output, Sale and Unsold Stock**

(in Rs.)

Type of Unit	1988			2004			Percentage Change		
	Production	Sale	Unsold stock	Production	Sale	Unsold stock	Production	Sale	Unsold stock
Woollen Textiles	9311 (100.0)	8953 (96.16)	358 (2.83)	12368 (100.0)	11891 (96.14)	477 (3.86)	32.83	32.81	33.46
Mating & Basketry	5616 (100.0)	5483 (97.63)	133 (2.37)	7220 (100.0)	6998 (96.93)	222 (3.07)	28.55	27.64	66.00
Carpentry	19706 (100.0)	19530 (99.11)	176 (1.23)	26014 (100.0)	25836 (99.32)	178 (0.68)	32.01	32.29	1.41
Blacksmithy	3917 (100.0)	3869 (98.77)	48 (1.23)	11585 (100.0)	11532 (99.54)	53 (0.46)	194.40	24.41	11.18
Rope Making	4075 (100.0)	3967 (93.35)	108 (6.65)	4910 (100.0)	4750 (96.74)	160 (3.26)	20.50	19.74	48.51
Flour Mill	19908 (100.0)	19656 (98.73)	252 (1.27)	27816 (98.57)	27418 (98.57)	378 (1.43)	39.72	39.49	57.11
Tailoring	119477 (100.0)	119332 (99.88)	145 (0.12)	15391 (100.0)	15138 (98.36)	253 (1.64)	28.82	28.27	73.89
Comb Making	5326 (100.0)	5300 (99.51)	26 (0.49)	6932 (100.0)	6890 (99.39)	42 (0.61)	30.15	30.01	56.83
Others	32883 (100.0)	32630 (99.23)	253 (0.77)	46916 (100.0)	46667 (99.47)	249 (0.53)	42.67	43.02	-1.53
Total	10352 (100.0)	10186 (98.40)	166 (1.60)	13623 (100.0)	13391 (98.30)	232 (1.70)	31.60	31.47	39.52

Considering into account the sale pattern of various goods and articles manufactured in different rural industrial activities the analysis presented in table 4.9 highlights that almost the industrial activities have been getting the opportunities to sale out a major proportion of their produced to its consumers. Even then the facts are also that each of the rural industrial activities have been producing excess volume of production of different goods and articles than their ongoing demands. The proportion of excess production being kept unsold in the stock of industrial households, however estimated to merely to 1.60 per cent and 1.70 per cent of the gross output during 1988 and 2004 respectively. But this proportion has been noted as high as around 4 per cent for woollen closely followed by over 3 per cent for each rope making and basketry and

mating product groups of industries during 2004. In fact the share of unsold goods to its gross output has found moving up to a certain level for products manufactured by woolen, mating and basketry, flour mills, tailoring and comb making industrial activities.

Irrespective of certain proportion of output being kept unsold in the stock of almost the rural industrial households and a significant increasing trend revealed in such pattern for a sizeable proportion of industrial products as well as overall increase of unsold production the volume of sale of all industrial products together has been increasing at the rate of 5.17 per cent annually. In fact it has been increasing to the extent of 7.17 per cent for products manufacture by repairing and servicing followed by 6.58 per cent by flour mills but at lowest level of 3.29 per cent for the products of rope making followed by 4.07 per cent for black smithy industrial activities. As far as the situation of excess production is concerned the value of per unit unsold goods and articles have been increasing relatively at much higher level as compared to its sales pattern. Also a considerable declining trend has been recognized in the growth of per unit-unsold commodities of carpentry, black smithy and repairing and servicing industrial activities. Annually, the volume of unsold commodities have found boosting up to the extent ranging between 12.32 per cent for tailoring followed by 11 per cent for mating and basketry industries and lowest at less than one per cent for carpentry with a negative rate of 0.26 per cent for repairing and servicing activities.

Further incorporating the perceptions of entrepreneurs regarding the possibility of strengthening the presently achieved increasing trend of out put in their enterprises the study found that the understanding of a little over 46 per cent entrepreneurs was that the volume of output in their enterprise shall continue to increase in the near future. Among them the proportions constituted relatively larger for those are engaged

in non-traditional form of enterprises, especially in the operation of flour mills than in traditional enterprises. Even the volume of production of a significant proportion of traditional household based enterprises such as carpentry and black smithy is also expected will favourably move up further. Despite these all facts a very larger proportion of 54 per cent of entrepreneurs feel that they will be not in a position to strengthen the presently achieved volume of output in their respective industries in the near future. Among them the main industrial enterprises comprises from traditional categories such as comb making enterprises (76 per cent) followed by 73 per cent rope making and 73 per mating and basketry enterprises.

Table- 4.10: **Possibility to Increase/Decrease in Output**

Type of Unit	Entrepreneurs reporting		Total
	Increase	Decrease	
Woollen Textiles	64 (38.55)	102 (61.45)	166 (100.0)
Mating & Basketry	87 (32.86)	181 (67.54)	268 (100.0)
Carpentry	84 (59.57)	57 (40.43)	141 (100.0)
Blacksmithy	91 (66.91)	45 (33.09)	136 (100.0)
Rope Making	43 (26.54)	119 (73.46)	162 (100.0)
Flour Mill	43 (76.79)	13 (23.21)	56 (100.0)
Tailoring	63 (67.02)	31 (32.98)	94 (100.0)
Comb Making	8 (23.53)	26 (76.47)	34 (100.0)
Others	20 (58.82)	14 (41.18)	34 (100.0)
Total	503 (46.10)	588 (53.90)	1091(100.0)

Access different raw materials and widening market demands of their products have been cited would be the most important factors by a majority of entrepreneurs of different rural industrial enterprises, which may positively promote the increasing rate of output in their enterprises in the years to come. Among them a fairly higher proportions of entrepreneurs are engaged in non-traditional industrial groups than in traditional one. In case of traditional form of enterprises the increasing market demands are expected to boost the size of output for comb making, basketry and

ming and black smithy. The benefits of increasingly declining trend revealed in opting of rural households to engage in rural industrial activities is also expected shall be

Table-4.11: **Factors Influencing to Increasing out put**

Type of Unit	Change in Product Designs	Availability of raw materials	Market Demands	Good quality of raw material	Sale in low rates	Upgradation of technologies	Lacking competition	Total Units
Woollen Textiles	6 (9.38)	7 (10.94)	30 (46.88)	20 (31.25)	1 (1.56)	--	--	64 (100.0)
Mating & Basketry	--	6 (6.90)	67 (77.01)	2 (2.30)	4 (4.60)	5 (5.75)	3 (3.45)	87 (100.0)
Carpentry	2 (2.38)	3 (3.57)	48 (57.14)	14 (16.67)	3 (3.57)	13 (15.48)	1 (1.19)	84 (100.0)
Blacksmithy	--	5 (5.49)	57 (62.64)	12 (13.19)	3 (3.30)	14 (15.38)	--	91 (100.0)
Rope Making	--	5 (11.63)	26 (60.47)	9 (20.93)	1 (2.33)	2 (4.65)	--	43 (100.0)
Flour Mill	--	2 (4.65)	30 (69.77)	3 (6.98)	1 (2.33)	2 (4.65)	5 (11.63)	43 (100.0)
Tailoring	7 (11.11)	1 (1.59)	30 (47.62)	16 (25.40)	4 (6.35)	5 (7.94)	--	63 (100.0)
Comb Making	--	1 (12.50)	7 (87.50)	--	--	--	--	8 (100.0)
Others	1 (5.00)	1 (5.00)	13 (65.00)	4 (20.00)	--	--	1 (5.00)	20 (100.0)
Total	16 (3.18)	31 (6.16)	308 (61.23)	80 (15.90)	17 (3.38)	36 (7.16)	10 (1.99)	503 (100.0)

directly seen in favour of reducing the market competitions in selling of and to realizing relatively higher prices of their products and thus, this process is expected will ultimately help in achieving increasing volume of output by a little over 5 per cent entrepreneurs. Introduction of additional articles in the production system and bringing improvements in production technology and the quality of products are also expected will certainly be an important factor to boost up the volume of output of products manufactured by most of the traditional household based industries and tailoring activities.

However, a overwhelming majority of over 40 per cent entrepreneurs, comprising a highest proportion among those are engaged in flour mills (69 per cent) followed by 65 per cent in comb making and 50 per cent in repairing and servicing enterprises had the understanding that decreasing demands for their products has been

Table-4.12: **Factors Influencing to Decreasing Output**

Type of Unit	(Number of Units)							Total units
	Lack of Demand	Lack of raw material	Lower Earnings	Competition among others	High cost of raw materials	Lack of improved technology	Poor quality of raw material	
Woollen Textiles	34 (33.33)	13 (12.75)	20 (19.61)	6 (5.88)	28 (27.45)	--	1 (0.98)	102 (100.0)
Mating & Basketry	54 (29.83)	78 (43.09)	14 (7.74)	12 (6.63)	9 (4.97)	9 (4.97)	5 (2.77)	181 (100.0)
Carpentry	24 (42.11)	21 (36.84)	1 (1.75)	6 (10.53)	2 (2.51)	2 (2.51)	1 (1.75)	57 (100.0)
Blacksmithy	22 (48.89)	--	13 (28.89)	4 (8.89)	6 (13.33)	--	--	45 (100.0)
Rope Making	51 (42.86)	33 (27.73)	17 (14.29)	11 (9.24)	6 (5.04)	1 (0.84)	--	119 (100.0)
Flour Mill	9 (69.23)	1 (7.69)	--	--	2 (15.39)	1 (7.69)	--	13 (100.0)
Tailoring	19 (61.29)	4 (12.90)	1 (3.23)	7 (22.58)	--	--	--	31 (100.0)
Comb Making	17 (65.38)	5 (19.23)	1 (3.85)	3 (11.54)	--	--	--	26 (100.0)
Others	7 (50.00)	3 (21.43)	--	4 (28.57)	--	--	--	14 (100.0)
Total	237 (40.31)	158 (26.87)	67 (11.39)	53 (9.01)	53 (9.01)	13 (2.21)	7 (1.19)	588 (100.0)

subsequently narrowing down the over all size of output of their enterprises. In a second majority of over one fourth enterprises, the inadequately availability of required raw material and decreasing accessibility of certain raw materials from local forests due exceeding environmental degradation have been mainly adversely affecting to sustain the present level of per unit output. Among them the most effected enterprises are in the product line of locally available forest resources based industrial enterprises such as basketry and mating, carpentry and rope making. The other influencing factors to

decreasing output in rural industrial activities included as increasing market competition while entering their products for selling in the nearby towns, increasing cost of raw materials, use of locally developed indigenous mode of production technologies making final products comparatively inferior than the similar better quality goods produced by modern firms and decreasing participation of workforce belonging to industrial households in undertaking their industrial activities due to the reasons of its low income generation capability as compared to even in engaging wage paid employment and so on.

A detailed enquiry was further carried out from the sample households regarding the kinds of measures to be most appropriate to strengthen and to achieve additional size of output in their industrial activities. Incorporating their perceptions in this regards it revealed that bringing improvements in the accessibility of obtaining raw materials, and quality of products, access to marketing facilities for selling the produced and initiating the provision of providing financial incentives from the Government for purchasing raw material and meeting out the cost of transportation involved in obtaining raw materials and marketing the produced would be the most important options to enhance the productivity and the output of rural industrial activities. In this regard, a highest proportion of entrepreneurs (25 per cent) have suggested for establishing a raw material banks on the patterns it has been established for woollen activities. Even almost a similar proportions of entrepreneurs, though largely among those are engaged in traditional form of enterprises have suggested for initiating improvements in the quality of various products through upgrading production technologies. The perceptions of a little over 15 per cent entrepreneurs are related to the initiation of a policy of rationalization of marketing prices for their products from the

part of the Government. Remaining options in this regards are mainly related to developing the marketing networks in the form of opening the purchasing centers under the management of Government, developing co-operative societies in different inaccessible areas and providing protection and facilitating the sale of local products both in local as well as non-local markets.

Table- 4.13: **Measures to be undertaken to enhance the Output**

Type of Units	Opening of raw material bank	Access to marketing Facility	Establishment of Govt. Purchasing Centres	Improving product Design & quality	Access to transport facilities	Protection to sale of products	Co-operative Marketing Facilities	Financial Assistance from Govt.	Improving Technology	Fixation of prices	Total
Woollen Textiles	61 (36.75)	23 (13.86)	39 (23.49)	46 (27.71)	10 (6.02)	8 (4.81)	23 (13.86)	28 (16.87)	22 (13.25)	35 (21.08)	166 (100.0)
Mating & Basketry	88 (32.84)	25 (9.33)	41 (15.30)	64 (23.88)	6 (2.24)	12 (4.48)	29 (10.82)	24 (8.96)	20 (7.46)	33 (12.31)	268 (100.0)
Carpentry	18 (12.77)	14 (9.93)	14 (9.93)	40 (28.37)	--	4 (2.84)	14 (9.93)	13 (9.21)	16 (11.35)	21 (14.89)	141 (100.0)
Blacksmithy	17 (12.50)	32 (23.52)	15 (11.03)	25 (18.38)	--	18 (13.24)	7 (5.15)	8 (5.88)	10 (7.35)	11 (8.08)	136 (100.0)
Rope Making	69 (42.59)	22 (13.58)	40 (24.69)	33 (20.37)	2 (1.23)	1 (0.62)	29 (17.90)	6 (3.70)	16 (9.88)	25 (15.43)	162 (100.0)
Flour Mill	2 (3.57)	14 (25.00)	1 (1.79)	12 (21.43)	--	--	4 (7.14)	26 (46.43)	5 (8.93)	7 (12.50)	56 (100.0)
Tailoring	3 (3.19)	8 (8.51)	3 (3.19)	28 (29.79)	1 (1.06)	26 (27.66)	7 (7.45)	13 (13.83)	18 (19.15)	11 (11.70)	94 (100.0)
Comb Making	12 (35.29)	4 (11.76)	14 (41.18)	20 (58.82)	1 (2.94)	7 (20.59)	10 (29.41)	--	5 (14.71)	17 (50.00)	34 (100.0)
Others	2 (5.88)	2 (5.88)	5 (14.71)	13 (38.24)	1 (2.94)	--	9 (26.47)	10 (29.41)	1 (2.94)	9 (26.47)	34 (100.0)
Total	272 (24.93)	144 (13.20)	172 (15.77)	281 (25.77)	21 (1.92)	76 (6.97)	132 (12.10)	128 (11.73)	113 (10.36)	169 (15.49)	1091 (100.0)

Marketing

As indicated earlier the rural industrial activities are involved in manufacturing of different goods and articles according to the requirement of rural households while the surplus is sold out in nearly towns and villages. It was also observed that despite a

small proportion of output remains unsold in the stock of industrial households a major proportion of around 98 per cent of it sold out both within the villages or in nearby towns under the different marketing arrangements. These views are further supported by the fact that a very high proportion of rural industrial production (58.11 per cent) is utilized by the rural households comprising the concerned villages while another 22 per cent is sold out in neighboring villages followed by 14 per cent in nearby towns and

Table-4.14: **Per Unit Sale Under Different Arrangements (Value in Rupees)**

Type of Unit	Within villages	Nearby villages	Nearby Towns	Through Exhibition Outside Region	Govt. Purchase	Others	Total
Woollen Textiles	3298 (27.73)	2139 (17.99)	2802 (23.56)	3375 (28.38)	163 (1.38)	114 (0.96)	11891 (100.0)
Mating & Basketry	2330 (33.29)	2275 (32.51)	1561 (22.31)	693 (9.90)	4 (0.06)	135 (1.93)	699 (100.0)
Carpentry	17107 (66.21)	6327 (24.49)	2357 (9.12)	--	--	45 (0.17)	25836 (100.0)
Blacksmithy	7158 (62.07)	2342 (20.31)	1995 (17.30)	37 (0.32)	--	--	11532 (100.0)
Rope Making	2005 (42.20)	1526 (32.13)	1020 (21.47)	178 (3.75)	--	21 (0.45)	4750 (100.0)
Flour Mill	23115 (84.30)	2741 (10.00)	1563 (5.70)	--	--	--	27419 (100.0)
Tailoring	13010 (85.94)	1827 (12.07)	301 (1.99)	--	--	--	15138 (100.0)
Comb Making	1696 (24.61)	1858 (26.97)	1566 (22.73)	1547 (22.45)	--	223 (3.24)	6890 (100.0)
Others	30350 (65.04)	9689 (20.76)	6628 (14.20)	--	--	--	46667 (100.0)
Total	7781 (58.11)	2879 (21.50)	1876 (14.01)	763 (5.70)	26 (0.19)	66 (0.49)	13391 (100.0)

cities and around 6 per cent through exhibitions organized within and outside Uttaranchal and remaining less than 1 per cent is either lifted by middle men and contractors or procured by the Government. Thus the local villages, nearby villages and nearby towns have been noted as the most preferred destinations for the sale of goods and articles manufactured in the rural industrial enterprises. However, the goods

manufactured by black smithy, carpentry, flourmills and tailoring are largely being sold in the local villages itself. In fact the nature of performing repairing and servicing activities of modern industrial enterprises is also basically based on the emerging local demands though a significant level of repairing and servicing activities are undertaken for the individuals of neighboring villages. The flour mills are found involved in the processing of various food grains mainly for local villagers. Also similar is in the case of tailoring activities. The carpentry households are seen manufacturing various wooden based furnitures and various articles used in construction of houses mainly for local households and to some extent for nearby villages and towns, even a little proportion of furnitures produced by them is also finding its market outside districts. However, it appears that the demand of certain goods manufactured by woolen, basketry and mating, rope making and comb making enterprises have been consistently increasing outside local villages. Since these industrial enterprises have started to sale their products through a number of channels both within and outside villages, nearby towns and through exhibitions, which are even organized outside Uttaranchal, during the recent past. As the proportion of sale of various products undertaken within the local villages consisted for only around 28 per cent by woolen activities, 33 per cent by basketry and mating, 42 per cent by rope making and 25 per cent by comb making enterprises. And remaining proportions of goods are sold out in neighboring villages, nearby towns and through exhibitions by this traditional form of industrial enterprises. Thus it is well evident that various products manufactured in traditional household based industrial enterprises are not only involved in meeting out the demands of local households but the demands of their products have been equally considerably increasing in neighboring villages and nearby towns and even outside Uttaranchal.

Whereas the basis of production of modern industrial enterprises is seems to be rather limited and shall continue to be centered around with the emergence of local demands. Emergence of middlemen and contractors in marketing of rural industrial products seems to be very negligible and restricted up to the making of transactions of merely less than one per cent of the products sold out by rural industries.

Table-4.15: **Most Preferential Channels of Marketing**

(Percentage distribution of Industrial Households)

Type of Unit	Contractors/ Middlemen	Nearby villages	Retailers/ consumers (local)	Govt. Agencies	Exhibition	Total
Woollen Textiles	18.80	5.98	8.55	45.30	21.37	100.00
Mating & Basketry	28.50	18.13	12.44	26.94	13.99	100.00
Carpentry	34.48	12.07	27.59	22.41	3.45	100.00
Blacksmithy	21.06	15.79	39.47	15.79	7.89	100.00
Rope Making	24.11	12.50	25.00	32.14	6.25	100.00
Flour Mill	27.78	--	33.33	38.89	--	100.00
Tailoring	10.26	10.26	56.41	12.81	0.26	100.00
Comb Making	27.59	6.90	3.45	41.38	20.68	100.00
Others	28.57	19.05	28.57	23.81	--	100.00
Total	24.80	12.64	20.48	30.24	11.84	100.00

However, due to accessibility problems arising in many parts of the rural areas and emerging insecurity in properly selling of rural industrial products, around one fourth proportions of the industrial households have been desiring to sale their products though middle men and contractors. Even the proportions of industrial households preferring to sale through contractors and middle men has been indicated as high as 34.48 per cent among those are engaged in carpentry followed by nearly 29 per cent mating and basketry and repairing and servicing units each. However a highest proportions of a little over 30 per cent industrial households have been preferring to sale their produced items through the involvement of Government Agencies. Among them the proportions stands to the extent of over 45 per cent to the lowest of 13 per

cent among those are engaged in woolen and tailoring activities respectively. But, an overwhelming majority of tailoring households (56.41 per cent) followed by 39 per cent blacksmithy, 33 per cent flour mills and 29 per cent repairing and servicing industrial households are still preferring to dispose their industrial products within the local villages itself. Selling of goods through exhibitions and in neighboring villages are indicated to be most preferential channels for 12 per cent industrial households but non of the household among those are engaged in flour mills is willing to sale their products through these both the channels of marketing.

Procurement of Raw Materials

Access to and the availability pattern of different raw materials is among the most important factor which determine and influence the level of productivity and income and thus, the overall development prospects of the manufacturing activities (Papola, 1982 and Pathak, 1982). It has generally been accepted that there has been a substantial decrease in the numbers of rural industrial industries, which were engaged in the manufacture of different type of local raw material based products even after the announcement and introduction of several protective measures to accelerate the development of manufacturing activities in rural areas under the various planned development strategies in the past (Mehta 2003). But the decrease in the availability and inadequately supply of required raw materials from different channels are universally acknowledged as the major factors responsible for the closer of a majority of certain rural industries during the recent past.

Table-4.16: **Per Unit Value of Raw Materials Procured by Sources**

Type of Unit	Own sources	Locally available		Outside	Market	Outside state	Total
		Free of cost	Purchased				
Woollen Textiles	88 (1.81)	19 (0.38)	3678 (75.93)	1015 (20.95)	45 (0.93)	--	4845 (100.0)
Mating & Basketry	299 (39.78)	382 (50.85)	93 (1.24)	7 (0.99)	10 (1.30)	44 (5.84)	751 (100.0)
Carpentry	7 (0.07)	217 (2.25)	7148 (74.32)	1160 (12.06)	1066 (11.08)	21 (0.22)	9618 (100.0)
Blacksmithy	178 (5.79)	267 (8.71)	1853 (60.38)	335 (10.90)	436 (14.22)	--	3069 (100.0)
Rope Making	238 (44.05)	287 (53.11)	6 (1.14)	5 (1.00)	4 (0.70)	--	541 (100.0)
Flour Mill	--	36 (0.34)	6028 (56.67)	3197 (30.06)	1375 (12.93)	--	10635 (100.0)
Tailoring	--	--	64 (2.95)	825 (38.10)	1277 (58.95)	--	2166 (100.0)
Comb Making	37 (11.89)	271 (88.11)	--	--	--	--	307 (100.0)
Others	19 (0.08)	46 (0.19)	14732 (62.88)	7426 (31.69)	1062 (4.53)	147 (0.63)	23432 (100.0)
Total	150 (3.64)	236 (5.71)	2492 (60.38)	815 (19.76)	416 (10.07)	18 (0.44)	4127 (100.0)

A major segment of rural industrial enterprises in the state are more or less dependent on the local supply of raw material, mainly from local forests. The traditional categories of household based industries such as carpentry, rope making, mating and basketry are the major industrial enterprises which development prospects are largely determined by the availability situation of raw material in local forests. The woollen activities use only raw wool in the production of different woollen activities. The local sheep and goat rears are mainly supplying the required quantity of wool as demanded by these units. In fact a majority of woollen households are simultaneously engaged in both rearing of goats and sheep along with the woollen activities for the last several generations. However, during the recent past, the shortage of local wool is also being met out through importing from Nepal, New Zealand and Australia. The Ringal (small

bamboo) which is available in the local forest, is the only raw material used by the mating and basketry units for the production of various sizes of mats, baskets, candies, wall hanging items, handicrafts and certain other articles which are used for collection of various forest products and storing of food grains. The black smithy's are only using iron and wooden products for the production of utensils, agricultural implements and items of daily use, which are largely available locally or in nearby small towns. Also the raw materials for the production of different types of ropes and combs are available in the local forests in adequate quantity.

An overwhelming majority of 83 per cent rural industrial enterprises are stated to be partially or fully obtaining their required raw materials locally. Instead, around 7 per cent of the enterprises, excepting tailoring and flourmills are themselves involved in the production of the required quantity of raw material on their own farms and wastelands. Though the share of such materials in total value of raw material being processed by different rural industries accounted to around 4 per cent. But its share reported as high at over 44 per cent in the quantity of raw material used by rope making enterprises followed by 40 per cent for mating and basketry and 12 per cent for comb making enterprises. At the same time, a very high proportion of 88 per cent comb making followed by 53 per cent rope making and 51 per cent mating and basketry enterprises have been obtaining their required quantity of raw materials from the nearby forests without paying any cost of its procurement. However a very high proportion of over 60 per cent raw materials is being purchased by rural industries though different local sources as against the 20 per cent share of raw material procured from out side local villages 10 per cent from local markets and 0.44 per cent from outside state. The woolen, carpentry, blacksmithy, flourmills and repairing and

servicing enterprises are the main rural industrial activities, which are largely purchasing locally available raw materials. Since, the share of raw material obtained from local areas stands highest at 76 per cent for woollen, closely followed at 74 per cent for carpentry, 63 per cent for repairing and servicing, 60 per cent for black smithy and 57 per cent for flour units. Similarly, per unit value of raw material procured from outside the villages of industrial households accounted to Rs.815, which reported highest at Rs.7427 for repairing and servicing followed by Rs.3197 for flour mills and Rs.1160 for carpentry. On an average the rural industries are spending Rs.4127 in the purchase and procurement of raw material. Though it constituted fairly highest at Rs.23,432 for repairing and servicing units followed by Rs.10,635 for flour mills and lowest at Rs.307 for comb making enterprises. Thus the production of various goods and articles in different rural industrial enterprises is, by and large based on locally available raw materials, though the mode of obtaining required type of raw material for processing of different product groups of enterprises is found differs to a certain extent. As nearly 83 per cent rural industrial enterprises have been obtaining nearly about 70 per cent of raw materials from local areas without making any payments on its supply, excepting meeting out some amount of transportation cost in its procurements.

Since almost the rural industrial activities have been obtaining at least some proportion of their required raw materials from different local sources. In fact a very high quantum of raw material per unit is procured from nearby forests. The study has, therefore, further attempted to assess the extent of changes emerging in the accessibility situations in obtaining different types of raw materials as required by different industrial enterprises. Such exercise has been undertaken through considering into accounts the changing structure in distance as covered by the industrial households

in obtaining raw material during the recent past. Thus the study finds that the industrial households have to cover the distance of nearly 8 kms for getting the supply of required raw materials. Even, a very high majority of around 56 per cent entrepreneurs are getting their supply of raw material after covering the distance of above 8 kms. And another 21 per cent of entrepreneurs have to cover the distance ranging between 4 to 8 km for concerned purposes. The supply of raw materials of only 4 per cent enterprises is met out through covering the distance of less than one km.

Table-4.17: **Distribution of Households by Distance Covering for Obtaining Raw Materials**

(Distance in Km.)

Type of Units	1998						2004					
	<1.0	1.0-4.0	4.0-8.0	8.0+	Total	Average Distance covered	<1.0	1.0-4.0	4.0-8.0	8.0+	Total	Average Distance covered
Woollen Textiles	9 (5.42)	43 (25.90)	49 (29.52)	65 (39.16)	166 (100.0)	8.96	7 (4.22)	46 (27.71)	35 (21.08)	78 (46.99)	166 (100.0)	9.83
Mating & Basketry	38 (14.18)	38 (14.18)	68 (25.37)	124 (46.27)	268 (100.0)	4.32	2 (0.75)	36 (13.43)	27 (10.07)	203 (75.75)	268 (100.0)	7.63
Carpentry	2 (1.42)	29 (20.57)	77 (54.61)	33 (23.40)	141 (100.0)	5.26	2 (1.42)	32 (22.70)	53 (37.59)	54 (38.29)	141 (100.0)	5.64
Blacksmithy	1 (0.74)	37 (27.21)	21 (15.44)	77 (56.61)	136 (100.0)	10.72	1 (0.74)	31 (22.79)	22 (16.18)	82 (60.29)	136 (100.0)	11.14
Rope Making	13 (8.03)	74 (45.68)	39 (24.07)	36 (22.22)	162 (100.0)	3.55	5 (3.09)	26 (16.05)	38 (23.46)	93 (57.40)	162 (100.0)	6.01
Flour Mill	13 (23.21)	5 (8.93)	15 (26.79)	23 (41.07)	56 (100.0)	8.16	11 (19.64)	7 (12.50)	15 (26.79)	23 (41.07)	56 (100.0)	8.34
Tailoring	7 (7.44)	24 (25.53)	33 (35.11)	30 (31.91)	94 (100.0)	3.95	12 (12.77)	27 (28.72)	24 (25.53)	31 (32.98)	94 (100.0)	3.90
Comb Making	3 (8.82)	3 (8.82)	7 (20.29)	21 (61.76)	34 (100.0)	4.32	--	--	3 (8.82)	31 (91.18)	34 (100.0)	9.97
Others	--	17 (50.00)	11 (32.35)	6 (17.65)	34 (100.0)	4.59	--	13 (38.24)	10 (29.41)	11 (32.35)	34 (100.0)	5.79
Total	86 (7.88)	270 (24.75)	320 (29.33)	415 (38.04)	1091 (100.0)	6.00	40 (3.67)	218 (19.98)	227 (20.81)	606 (55.54)	1091 (100.0)	7.64

Over the years the average distance to cover for obtaining required raw materials by the entrepreneurs of almost the product groups of rural industrial activities is on the increase. Initially the entrepreneurs had to cover the average distance of about 6 kms

during 1998, which has increased to almost 8 kms in 2004 for concerned purposes. The traditional household based industries such as mating and basketry, rope making and comb making have been noted as the most sufferer enterprises in terms of decreasing accessibility to their required raw materials during the recent past. As they have now to covered at least double the distance as compared to what they have been covering nearly six years ago to get the supply of their raw materials for its processing. On the whole the clear cuts indications which visualized are that the increasing inadequacy in obtaining required quantity of various raw materials would be a serious challenge for sustaining the operation of various rural industrial activities, especially those functions are based on raw material available in the local forests. Providing increasing initiatives towards the plantation as well as scientifically exploitation of existing natural resources in general and certain forest resources which are used as raw material in the production processes of different rural industries would, therefore, be an important measures both for the healthy growth of rural industries as well as for the preservation of environmental system.

CHAPTER - V

PROBLEMS AND PROSPECTS

The analysis presented in the preceding chapters has well depicted the fact that despite a considerable declining rates experienced in the growth pattern of various household based traditional industrial enterprises a significant number of potential non-traditional industrial enterprises have come up as a result of increasing emphasis has been provided in the development of different social and economic infrastructural facilities, especially access to road transport facilities during the recent past in different geographical locations. Also as the consequences of increasing incidence of unemployment among rural labourforce, especially young generations, they have also been increasingly opting to engage in different rural industries, including in their traditional household based enterprises. The significance of opting the undertaking of different industrial activities of rural households have also been well reflected in terms of its increasing contribution in the income of industrial households and providing employment opportunities to the labourforce of both industrial households and hired labourers. Average size of per unit or per worker income being generated from different categories of rural industrial units, especially from non-traditional units along with the per household income generated from farm sector seems to be quite sufficient for sustaining the livelihood of rural households. Even this average income generated from both the sources together constituted relatively higher than the prescribed poverty line for rural households.

Considering the whole analysis of our study into account it is expected that the expansion pattern of various manufacturing activities will continue to a certain extent and their further expansion will be largely determined by the process of development of various other productive economic sectors, along with the general increase in the income level of

rural households and the process of expansion and providing various infrastructural facilities, especially the expansion of roads, credit and marketing facilities.

On the whole the expansion and establishment pattern of various product groups of manufacturing activities have been slow down, even a significant proportions of units have been washed out from the rural seen during the recent past in almost the geographical locations of the state. Besides the lack of any concrete intervention undertaken by the policy makers in the past towards developing and initiating a comprehensive planning approach for scientifically exploitation of area specific available comparative advantages and opportunities as provided by the nature for expanding local resources based rural industrial enterprises; the two most important factors, which are equally contributing towards the unsatisfactory growth of this sector in the state are, firstly, the increasing scarcity of locally available raw materials due to increasing deforestation and depletion of various natural resources during the recent past, and, secondly, the inadequate development of an efficient marketing network for selling the products of rural industries. Broadly some of the other related factors in this context are the use of inefficient modes of traditionally developed production technologies, declining local demands for products due to competition from modern sector, lack of diversification in the production system and low level of productivity and income generation potentials of these rural based industries.

Factors Influencing to Unsuccessful Growth

In detail, lack of finances and credit facilities to meet out various recurring expenses involved in undertaking industrial activities, limited demands of industrial products, inadequately developed and improper marketing facilities, relatively lower level of per unit

and per worker earnings, low quality of goods and articles produced, increasing competitions in selling of their goods in both internal and external markets due to the arrival of similar goods manufactured in modern sector enterprises, both in the rural areas and nearby towns, increasing inaccessibility to the availability of required raw materials, use of indigenous mode of traditional technologies in production process and undesirable interferences of Government machinery while carrying goods for selling outside rural areas in local towns and other urban areas have been noted as the important factors which have been adversely affecting the growth pattern of rural industrial activities in sample areas. In all, the various problems emerging in terms of marketing of rural industrial products and in connection to access to the scarcity and availability situation of different raw materials used in these tiny enterprises have been cited as the two major problems by around 73 per cent and over 60 per cent enterprises respectively which have been largely influencing the adverse growth of different product groups of rural industries in different geographical locations. However, both the problems have been largely affecting the growth pattern of traditional form of household enterprises as compared to non-traditional one. Since among the traditional enterprises the problem of marketing is sought to be a major problem of a highest proportion of over 83 per cent woollen activities followed by 82 per cent comb making, 81 per cent rope making and least at 69 per cent blacksmithy enterprises while among non-traditional enterprises a highest proportion of units facing such problems comprises highest at 56 per cent among those are engaged in repairing and servicing and lowest at 43 per cent among flour mills. Similarly, the proportions of enterprises which are realising certain problems associated to the raw material availability accounted in the range of between 83 per cent (rope making) to 38 per cent (carpentry) among traditional industries as against 41 per cent among all non-traditional rural industries together.

Table 5.1: **Elements Affecting to Unsuccessful Growth of the Enterprises**

Type of Unit	Lack of finances	Limited demand of the products	Lacking Marketing facilities	Low returns	Inferior quality of products	Competition in the marketing	Lacking access to raw materials	Others*	Total Units
Woollen Textiles	22 (13.25)	29 (17.45)	138 (83.13)	88 (53.01)	20 (12.05)	51 (30.72)	110 (66.27)	51 (30.72)	116 (100.0)
Mating & Basketry	54 (20.15)	54 (20.15)	198 (70.21)	137 (51.12)	36 (13.43)	89 (33.20)	205 (76.49)	49 (18.28)	268 (100.0)
Carpentry	23 (16.31)	23 (16.31)	99 (70.21)	28 (19.86)	9 (6.38)	19 (13.48)	53 (37.59)	--	141 (100.0)
Blacksmithy	2 (1.47)	11 (8.09)	94 (69.12)	25 (18.38)	11 (8.09)	17 (12.50)	76 (55.88)	--	136 (100.0)
Rope Making	13 (8.02)	21 (12.96)	131 (80.86)	40 (24.69)	18 (11.11)	28 (17.28)	135 (83.33)	13 (8.02)	162 (100.0)
Flour Mill	9 (16.07)	5 (8.93)	24 (42.86)	6 (10.71)	--	6 (10.71)	23 (41.07)	4 (7.14)	56 (100.0)
Tailoring	15 (15.95)	10 (10.64)	60 (63.83)	17 (18.09)	1 (1.06)	17 (18.09)	19 (20.21)	1 (1.06)	94 (100.0)
Comb Making	5 (14.71)	15 (44.12)	28 (82.35)	24 (70.59)	8 (23.53)	16 (47.06)	21 (61.76)	2 (5.88)	34 (100.0)
Others	11 (32.35)	5 (14.71)	19 (55.88)	14 (41.18)	3 (8.82)	2 (5.88)	14 (41.18)	--	34 (100.0)
Total	154 (14.11)	173 (15.86)	791 (72.50)	379 (34.74)	106 (9.72)	245 (22.46)	656 (6.13)	120 (11.00)	1091 (100.0)

*Others – non-availability of skilled labour, out-dated technology used and unwanted interference of Government machinery in marketing outside rural areas.

Realization of low return per unit or per worker in undertaking rural industrial activities is believed to be largely affecting the growth prospects of comb making, woollen and mating and basketry enterprises. Otherwise the concerned factor has been no way effecting the growth of even most of the traditional form of rural industries, especially for carpentry, blacksmithy, rope making and tailoring activities. In all a little over one-third proportion of entrepreneurs of different rural industrials have the understanding that low income potentials of their concerned activities have been limiting the scope of rural people to opt for undertaking rural industrial activities. Increasing competitions in selling of rural industrial products in the nearby towns from non-local producers and within rural areas itself from the manufacturers of

neighbouring villages have been mainly adversely influencing the growth of traditional household based enterprises. Among them the proportions stand highest at 47 per cent for comb making enterprises, followed by nearly one-third proportions among each woollen and mating and basketry enterprises. In case of non-traditional enterprises such problem is realized by only 11 per cent and 6 per cent of the entrepreneurs which are engaged in flour mills and repairing and servicing activities respectively. Emerging financial and credit related problems in the operation of different rural industrial enterprises is experienced by a little over 14 per cent entrepreneurs which are largely engaged in undertaking non-traditional form of industrial activities. Another, around 16 per cent entrepreneurs have the understandings that the limited marketing potentials and demands for various goods and articles produced in rural industrial activities have been negatively affecting the growth of this sector. While the perceptions of a very low proportions of 11 per cent entrepreneurs are that the problems such as non-availability of skilled labourers from outside their households, use of out-dated traditionally developed mode of production technologies and undesirable interferences of government machinery in marketing of their products outside rural areas in nearby towns could be the major bottlenecks disavouring the development of rural industrial enterprises. Over and above all the existing rural industrial enterprises have reported at least one or more problems emerging in this context.

Problems of Raw Materials

Decreasing access to the availability of raw material as required for processing in different rural industrial activities have been posing a most serious constraints in the productivity and development of various industries, especially which production process is primarily based on locally available raw materials. Traditionally most raw materials

were locally and easily available in adequate quantity at reasonable prices, even most raw materials were obtained from the local forests through covering a very short distance without paying any cost of its procurement. However, due to increasing deforestation undertaken by the local people to meet their requirement of fuel and animal feeding, house construction purposes and at some extent for selling forest products in nearby markets so as to sustain the livelihood and by the forest mafias for its commercial uses during the recent past, non-availability of required raw materials as per the demands in nearby forests of the villages have not only compelled the rural industrial households to cover longer distances to obtain the raw material but most of the forest products can be obtained through making a significant amounts of payment for its collection in the form of royalty to the village Van Panchayats and forest department. The accessibility situation of the availability of raw materials for different categories of rural industrial enterprises, in terms of distances they are usually covering for the supply of required raw material has already presented in the last chapter.

Despite the fact that the average distance to cover for obtaining required raw materials from different destinations has been consistently increasing, a significant proportion of around 40 per cent of the sample enterprises are seen completely satisfied with the emerging availability situation of different raw materials in local areas. Of them a highest proportions of enterprises are involved in undertaking tailoring (80 per cent) followed by 62 per cent carpentry and 59 per cent each in flour mills and repairing and servicing activities. In all, most dissatisfied industrial enterprises in terms of raising inaccessibility to the availability situation of raw materials are in the traditional groups of household based industries. Besides the increasing distance as the

Table 5.2: **Problems Emerging in Obtaining Raw Material**

Type of Units	Problems			If Yes, Type of Problems					
	Yes	No	Total	Inadequacy in availability	Untimely available	Increasing distance	High Prices	Decreasing quality	Total Unit facing problems
Woollen Textiles	110 (66.27)	56 (33.73)	166 (100.0)	56 (50.91)	53 (48.18)	63 (57.27)	88 (80.00)	29 (26.36)	110 (100.0)
Mating & Basketry	205 (76.49)	63 (23.51)	268 (100.0)	161 (78.54)	67 (32.68)	169 (82.44)	62 (25.37)	81 (39.51)	205 (100.0)
Carpentry	53 (37.59)	88 (62.41)	141 (100.0)	15 (28.30)	6 (11.32)	20 (37.74)	46 (86.79)	13 (24.53)	53 (100.0)
Blacksmithy	76 (55.88)	60 (44.12)	136 (100.0)	20 (26.32)	7 (9.21)	49 (64.47)	29 (38.16)	2 (2.63)	76 (100.0)
Rope Making	135 (83.33)	27 (16.67)	162 (100.0)	117 (86.67)	47 (34.81)	66 (48.89)	15 (11.11)	22 (16.30)	135 (100.0)
Flour Mill	23 (41.07)	33 (58.93)	56 (100.0)	1 (4.35)	4 (17.39)	12 (52.17)	15 (65.22)	3 (13.04)	23 (100.0)
Tailoring	19 (20.21)	75 (79.79)	94 (100.0)	--	3 (15.79)	8 (42.11)	10 (52.63)	2 (10.53)	19 (100.0)
Comb Making	21 (61.76)	13 (38.24)	34 (100.0)	11 (52.38)	4 (19.05)	18 (85.71)	2 (9.52)	12 (57.14)	21 (100.0)
Others	14 (41.18)	20 (58.82)	34 (100.0)	2 (14.29)	5 (35.71)	6 (42.86)	11 (78.57)	4 (28.57)	14 (100.0)
Total	656 (60.13)	435 (39.87)	1091 (100.0)	383 (58.38)	196 (29.88)	411 (62.65)	268 (40.85)	168 (25.61)	656 (100.0)

major problem realised in obtaining required raw materials the remaining constraints included as its accessibility in inadequate quantity, untimely supply conditions, increasing cost of supply and decreasing the quality of supplies. A second most majority of over 58 per cent enterprises, comprising a fairly highest proportions among rope making (87 per cent) followed by 79 per cent basketry and mating and lowest at 4 per cent among flour milling activities have complained that they generally find a very insufficient quantity of raw materials for its processing. The problems of increasing prices of raw materials have been expressed largely by traditional industrial enterprises, especially those are confined in the production line of woollen and carpentry. Even 78 per cent enterprises among each flour milling and servicing and repairing have also pointed out that the increasing cost of raw materials has been adversely affecting the

functioning of their activities. Another a little over one-fourth portion of enterprises has complained regarding the decreasing quality of raw materials, which largely forwarded by combing, mating and basketry and servicing and repairing enterprises. The proportion of enterprises who have been not getting required quantity of raw materials in time are noted highest among those are in the product groups of woollen (48 per cent) followed by repairing and servicing and lowest at 9 per cent among blacksmithy industrial enterprises (Table 5.2).

Problems in Marketing

Lack of demands for the products manufactured in rural industrial enterprises outside local villages and neighbouring urban areas has been often considered as a serious problem in their expansion and development. Large proportions of goods and items produced by household based traditional rural industrial units are utilitarian rather than luxury goods. The bulk of demand for these products is, therefore, found in rural areas, among people with limited purchasing power and low budget for these items. In the event of entering certain goods and articles produced by some of the traditional industries such as carpentry, woollen, basketry and mating in the nearby markets for sale they find a very high level of competitions from the arrival of similar type of good quality goods manufactured through modern technology in urban areas. It is, therefore, the study earlier found that a very high majority of rural enterprises are forced to keep the stock of a sizeable volume of their products with them.

The hypothesis of marketing as a problem has been well suggested by the pattern of sale and the stock of different items being kept unsold by the different rural industrial households. In spite of these highlighted facts revealed in the marketing of rural industrial products the study further finds that a little over one-fourth proportions

of enterprises have been hardly facing any problems in marketing their products, though such enterprises are largely in the product group of flour milling, repairing and servicing of modern machinery and equipments and to a certain level in blacksmithy. In all, lacking of appropriate arrangements for selling different items produced by various rural industrial activities has been visualised as a serious problem for almost the traditional and non-traditional form of enterprises, accounting as high as 86 per cent among comb making followed by 70 per cent each among woollen and rope making enterprises to lowest at 39 per cent among blacksmithy and 50 per cent among flour milling enterprises. The complaints of realising inadequate prices for their products have been forwarded by nearly three-fourths of enterprises, though the proportion of such enterprises reaches as larger as over 96 per cent among comb making followed by 78 per cent among woollen and it reaches at the lowest level of merely 8 per cent for flour milling industrial enterprises. Another nearly 60 per cent of rural industrial enterprises have been experiencing a fairly larger competitions in selling their products within rural areas itself with the arrival of similar goods as produced in neighbouring villages and in nearby towns from the goods produced outside rural areas. Of the enterprises, which are facing competitions from former producers stands highest among servicing and repairing units followed by carpentry while those facing competitions from outsiders in nearby markets reported to be highest at 97 per cent among tailoring followed by 89 per cent among comb making enterprises and lowest at 38 per cent among flour milling rural industries. A little proportion of about 6 per cent industrial enterprises together among woollen, mating and basketry, blacksmithy, rope making, tailoring and comb making are also lacking the facilities of transportation for carrying their products in the nearby markets and neighbouring villages for its sale

(Table 5.3). Thus, a variety of problems are being faced by a huge proportions of rural industrial enterprises, particularly which production system is based on local as well as outside rural demands, in marketing of their products due to inadequately developed proper marketing network and prevailing differential types of non-beneficial marketing arrangements, disavouring to the producers. Therefore, the industrial activities in rural areas are largely concentration in manufacturing of different goods according to its size of local demands.

Table 5.3: **Kinds of Problems in Marketing of the Products**

Type of Units	Problems			Type of Problems							
	Yes	No	Total	Inse-cured Sale	Inade-quate Prices	Competition among locals	Lacking outside demand	Lacking Transportation facility	Competition from outsiders	Others	Total
Woollen Textiles	138 (83.13)	28 (16.87)	166 (100.0)	96 (69.57)	107 (77.54)	69 (50.00)	41 (29.71)	17 (12.32)	88 (63.77)	2 (1.45)	138 (100.0)
Mating & Basketry	198 (73.88)	70 (26.12)	268 (100.0)	143 (72.22)	142 (71.72)	120 (60.61)	50 (25.25)	21 (10.61)	110 (55.55)	4 (1.01)	198 (100.0)
Carpentry	99 (70.21)	42 (29.79)	141 (100.0)	37 (37.37)	53 (53.54)	71 (71.72)	27 (27.27)	--	43 (43.43)	--	99 (100.0)
Blacksmithy	94 (69.12)	42 (30.88)	136 (100.0)	37 (39.36)	59 (62.77)	43 (45.74)	21 (22.34)	2 (2.13)	43 (43.74)	5 (5.32)	94 (100.0)
Rope Making	131 (80.86)	31 (19.14)	162 (100.0)	93 (70.99)	85 (64.89)	79 (60.31)	22 (16.79)	2 (1.53)	86 (65.65)	4 (3.05)	131 (100.0)
Flour Mill	24 (42.86)	31 (19.14)	56 (100.0)	12 (50.00)	2 (8.33)	13 (54.17)	8 (33.33)	--	9 (37.80)	--	24 (100.0)
Tailoring	60 (63.83)	34 (36.17)	94 (100.0)	34 (56.67)	17 (28.33)	32 (53.33)	14 (23.33)	6 (10.00)	58 (96.67)	2 (3.33)	60 (100.0)
Comb Making	28 (82.35)	6 (17.65)	34 (100.0)	24 (85.71)	27 (96.43)	12 (42.86)	6 (21.43)	1 (3.57)	25 (89.29)	--	28 (100.0)
Others	19 (55.88)	15 (44.12)	34 (100.0)	16 (84.21)	13 (68.42)	15 (78.95)	6 (31.58)	--	13 (68.42)	--	19 (100.0)
Total	791 (72.50)	300 (27.50)	1091 (100.0)	492 (62.20)	505 (63.84)	454 (57.40)	195 (24.65)	49 (6.198)	475 (60.05)	17 (2.15)	791 (100.0)

Options for Solving Marketing Problems

Surprisingly even after the production of various kinds of handicrafts is undertaken in a sizeable quantity by a large numbers of rural industrial enterprises for last several

generations in different part of the State neither any Government Departments nor any other Institutions have so far made any initiatives to improve the marketing network and to develop any appropriate marketing arrangement so as to promote the sale of the goods and articles manufactured by these enterprises. In this context, the suggestions of entrepreneurs of sample rural industrial enterprises, regarding the kinds of options they feel important for solving presently emerging problems of marketing were gathered and are presented in Table-5.4. Irrespective of the fact that around 28 per cent entrepreneurs were not experiencing any marketing related problems the information regarding this aspect have been gathered from all the sample enterprises with an understanding that they also realise about the kinds of problems the other fellow entrepreneurs are facing in selling their products in rural areas. The perceptions of almost the entrepreneurs of rural industries were that bringing improvements in the quality of products, introduction of more products in production system and additional designs of the products, access to transport facility and providing subsidy on the cost of raw material procurement and rebate on the sale of the produced, protection to the sale of rural industrial products while its entering in the local markets and development of appropriate marketing facilities through establishing co-operative sale centres, Government purchase centres and increasingly organising of exhibitions could be the most important options to overcome the emerging marketing problems for selling rural industrial products. However, a very high majority of over 52 per cent entrepreneurs had the assumptions that together of improving the quality of products and introduction of additional goods in production system could be the most favourable option for finding better marketing opportunities for rural industrial products even in presently existing marketing arrangements and its network. Such perceptions were incorporated largely in case of the entrepreneurs, which are engaged in undertaking household based traditional industrial activities as compared to entrepreneurs representing

non-traditional enterprises. Another, a second majority of 34 per cent and 30 per cent responses of entrepreneurs were in favour of expanding marketing facilities through establishing co-operative marketing centres and government managed procurement centres for goods and articles manufactured by rural industrial activities. Again a sizeable proportions of entrepreneurs representing to locally available raw material based enterprises have suggested for introduction of a policy of providing rebate on the sale of rural industrial products by the government on the pattern it has been introduced for khadi

Table 5.4: **Measures to Solve Existing Marketing Problems**

Type of Unit	Improving quality through technology upgradation	Introduction of Additional design of products	Introduction of Additional goods in production system	Organising exhibition	Rebate on sale	Providing Transport subsidy	Access to transport Facility	Access to Government Purchase	Developing Co-operative marketing System	Protection of sale of local goods	Others	Total
Woollen Textiles	78 (46.99)	47 (28.31)	27 (16.27)	68 (40.96)	48 (28.92)	35 (21.08)	29 (17.47)	64 (38.55)	78 (46.99)	33 (19.88)	3 (1.81)	166 (100.0)
Mating & Basketry	126 (47.07)	58 (21.64)	47 (17.54)	64 (23.88)	77 (28.73)	46 (17.16)	51 (19.03)	102 (38.06)	111 (41.42)	50 (18.66)	5 (1.87)	268 (100.0)
Carpentry	34 (24.11)	24 (17.02)	12 (8.51)	16 (11.35)	28 (19.86)	11 (7.80)	9 (6.38)	30 (21.28)	23 (16.31)	4 (2.84)	--	141 (100.0)
Blacksmithy	28 (20.59)	10 (7.35)	12 (8.82)	9 (6.62)	19 (13.97)	18 (13.24)	7 (5.15)	18 (13.26)	17 (12.50)	1 (0.74)	--	136 (100.0)
Rope Making	64 (39.51)	19 (11.73)	32 (19.75)	31 (19.14)	37 (22.84)	24 (14.81)	37 (22.84)	62 (38.27)	71 (43.83)	17 (10.49)	3 (1.85)	162 (100.0)
Flour Mill	2 (3.57)	--	3 (5.36)	--	4 (7.14)	--	1 (1.79)	3 (5.36)	3 (5.35)	3 (5.36)	1 (1.79)	56 (100.0)
Tailoring	27 (28.72)	12 (12.77)	12 (12.77)	11 (11.70)	9 (9.57)	6 (6.38)	4 (4.26)	17 (18.09)	29 (30.85)	14 (14.89)	--	94 (100.0)
Comb Making	12 (35.39)	8 (23.53)	4 (11.76)	11 (32.35)	10 (29.41)	4 (11.76)	4 (11.76)	21 (61.76)	29 (85.29)	9 (26.47)	--	34 (100.0)
Others	13 (38.23)	5 (14.71)	4 (11.76)	6 (17.65)	9 (26.47)	--	2 (5.88)	8 (23.53)	10 (29.41)	1 (2.94)	--	34 (100.0)
Total	384 (35.20)	183 (16.77)	153 (14.02)	216 (19.79)	241 (22.09)	144 (13.20)	144 (13.20)	325 (29.79)	371 (34.01)	132 (12.10)	12 (1.10)	1091 (100.0)

products manufactured in public sector. Such units are mainly involved in the production of woollen, mating and basketry and comb making products. Making the arrangements for

frequently organising of exhibitions for selling out the rural industrial products has been suggested mainly by the entrepreneurs of woollen, comb making and mating and basketry enterprises. Even a significant proportions of entrepreneurs who are engaged in these product groups of enterprises have also expressed for favour of protecting the sale of their products from the competitions being faced in open markets in nearby towns from the arrival of similar goods produced in modern sector.

Options for Solving the Emerging Problems of Raw Material Procurement

Initiatives towards the establishment of raw material banks on the pattern it has been established by Khadi Board for raw wools, establishment of Government Raw Material Supply Centres, introduction of a policy measure to provide subsidy on the purchase of raw material from different sources and the provision of transport subsidy on procuring raw material from different destinations and providing financial assistance to meet out the procurement costs of raw materials have been suggested as the most important options by 656 of the entrepreneurs of rural industrial enterprises for solving the emerging problems of obtaining of various raw materials. However, a very high proportions of around 79 per cent entrepreneurs have suggested for establishment of raw material banks in different geographical locations in specific to different product groups of enterprises. Among them a highest proportion of entrepreneurs are involved in the product group of mating and basketry (96 per cent) followed by rope making (86 per cent) and repairing and servicing (79 per cent) and lowest proportion of 35 per cent in flour mills. Establishment of Government procurement centres for obtaining required material have been largely suggested by traditional form of rural household industries, more especially by comb making, basketry and mating and woollen enterprises. Nearly half of the entrepreneurs feel that the introduction of subsidy on the procurement cost of various raw materials would be quite necessary initiative to reduce the cost of production and providing them an

opportunity to maximise their size of production. The cost of transportation in carrying out raw materials from different destinations and sources comprises a very unaffordable to the entrepreneurs to run their rural industries successfully. In this context nearly 21 per cent of entrepreneurs, consisting a highest proportion of nearly 43 per cent among those are engaged in woollen activities followed by 29 per cent repairing and servicing activities had the understandings that introduction of a policy of subsidy on the cost of transporting raw materials from different supply centres would possibly be strengthened their capacity to procure adequate quantity of raw materials while a lowest proportion of about 2 per cent entrepreneurs of mating and basketry, woollen, blacksmithy, carpentry and flour mills together have suggested for initiating a measure for providing financial assistance in favour of procuring raw materials.

Table 5.4: **Suggestions to Solve the Problems of Raw Materials**

Type of Units	Establishment of raw material banks	Establishment of Govt. Supply centres	Introduction of Subsidy on purchases	Introduction of transport subsidy on raw material supply	Financial aid for procuring raw material	Total
Woollen Textiles	82 (74.55)	79 (71.82)	85 (77.27)	47 (42.73)	1 (0.91)	110 (100.0)
Mating & Basketry	196 (95.61)	156 (76.10)	88 (42.93)	40 (19.51)	5 (2.44)	205 (100.0)
Carpentry	29 (54.72)	13 (24.53)	25 (47.17)	5 (9.43)	2 (3.77)	53 (100.0)
Blacksmithy	52 (68.42)	20 (26.32)	35 (46.05)	18 (23.68)	2 (2.63)	76 (100.0)
Rope Making	117 (85.66)	87 (64.44)	45 (33.33)	11 (8.15)	--	135 (100.0)
Flour Mill	8 (34.78)	7 (30.43)	14 (60.87)	5 (21.74)	1 (4.35)	23 (100.0)
Tailoring	6 (31.58)	1 (5.26)	17 (89.47)	1 (5.26)	--	19 (100.0)
Comb Making	16 (76.19)	18 (85.71)	7 (33.33)	3 (13.29)	--	21 (100.0)
Others	11 (78.57)	7 (50.00)	8 (57.14)	4 (28.57)	--	14 (100.0)
Total	517 (78.81)	388 (59.15)	324 (49.39)	134 (20.43)	11 (1.68)	656 (100.0)

Prospects of Development

As revealed in analysis undertaken in last chapters that the contribution of rural industries has been consistently increasing in providing employment opportunities for rural labourforce and originating income for households engaged on them. Even after a considerable declining trend revealed in the growth pattern of certain product groups of units the participation of rural households in establishing different rural industries has subsequently been increasing with making concerned activities as the prime source of income generation for their livelihood. The size of production and output per unit generated and per worker productivity have also been recognized quite sufficient for maintaining the livelihood of households in rural areas of the state. The significance of undertaking rural industrial activities as the source of employment and income generation has been ranked manifold higher as compared to farm sector at household level of rural communities. However, certain problem related to marketing, technology, raw material supply and competition in selling of certain good and articles manufactured in rural industries have been largely restricting the expansion pattern of various product group of enterprises at desired level, especially which are comprising traditional form of household based units.

Increase in Size of Production

Irrespective of the certain problems emerging in undertaking different rural industrial activities the study finds that a fairly high proportion of around 53 per cent of the present entrepreneurs of different rural industrial enterprises have been expecting to achieve at least some extent of increase in the size of production in their concerned units. In fact the concerned proportions of entrepreneurs are as high as 76 per cent which are undertaking carpentry followed by 76 per cent tailoring and 71 per cent

repairing and servicing enterprises, though a lowest proportions of them are confined in the operation of mating and basketry (36 per cent) enterprises. At the same time it is expected that the size of production in a little over 46 per cent units will consistently increase in the future at the average rate of around 10 per cent per annum, though it is expected to be varied significantly for different product group of enterprises. As a fairly highest level of around 13 per cent increase is expected in each repairing and servicing and comb making enterprise, closely followed by a little over 12 per cent each in woollen and

Table 5.6: **Possibility of Increase in Production**

Type of Units	No. of Units reporting No increase in production	Percentage Increase in Production					Total Units	Average Increase (%)
		< 5	5-10	10 - 20	20 +	Total		
Woollen Textiles	102 (61.45)	6 (3.61)	15 (9.04)	29 (17.47)	14 (8.43)	64 (38.55)	166 (100.0)	12.23
Mating & Basketry	181 (67.53)	17 (6.34)	25 (9.32)	40 (14.93)	5 (1.86)	87 (32.47)	268 (100.0)	11.80
Carpentry	57 (40.42)	17 (12.06)	13 (9.22)	36 (25.53)	18 (12.77)	84 (59.82)	141 (100.0)	9.74
Blacksmithy	45 (33.09)	16 (11.76)	28 (20.59)	44 (32.35)	2 (2.21)	91 (66.91)	136 (100.0)	8.08
Rope Making	119 (73.46)	2 (1.23)	16 (9.88)	21 (12.96)	4 (2.47)	43 (26.54)	162 (100.0)	9.98
Flour Mill	13 (23.21)	--	13 (32.21)	25 (44.64)	5 (8.93)	43 (74.79)	56 (100.0)	7.12
Tailoring	31 (32.98)	4 (4.26)	14 (14.89)	35 (37.23)	10 (10.64)	63 (67.82)	94 (100.0)	8.13
Comb Making	26 (76.47)	7 (20.59)	--	1 (2.94)	--	8 (23.53)	34 (100.0)	12.63
Others	14 (41.18)	--	4 (11.76)	6 (17.64)	10 (29.41)	20 (58.82)	34 (100.0)	12.70
Total	588 (53.90)	69 (6.32)	128 (11.73)	237 (21.73)	69 (6.32)	503 (46.10)	1091 (100.0)	9.87

mating and basketry units while a lowest level of 7 per cent in flour mills. In all, the proportions of enterprises which are expecting at least some increase in the size of production in their enterprises in the near future accounted highest at 75 per cent among flour mills followed by 67 per cent tailoring and a lowest level of around one-fourth proportion among comb making enterprises. It has further been pointed out that the size of

production in rural industrial activities can be achieved upto the extent of over 20 per cent in the cases of over 6 per cent enterprises, comprising a highest proportion of over 29 per cent in repairing and servicing units to lowest at around 2 per cent in mating and basketry units, though a highest proportion of around 22 per cent units are expecting to achieve the increase ranging between 10 to 20 per cent in their size production while another second majority of 12 per cent enterprises will be in a position to achieve the target of 5 to 10 per cent increase in its size of production within a year's duration (Table 5.6).

Further inquiring among the entrepreneurs of different rural industries regarding their planning for undertaking any expansion in their present unit it revealed that a sizeable numbers of entrepreneurs, in fact, relatively much higher than the proportions of entrepreneurs who have expecting at least some increase in the volume of output in their concerned activity, are expected would be undertaking at least some extent of development in their industry on various manners, mainly through introduction of additional goods in production system, bringing improvements in the production technology, introducing additional machinery and equipments and thus improving the quality of products and introduction of new and additional designs of the products. However, fairly a highest proportion of entrepreneurs are expected would be undertaking diversification in their enterprises through introduction of additional articles in the production system (57.46 per cent) followed by nearly about half of them through bringing improvement in the production technologies through installation of additional and modern machines and equipments in their units and a lowest proportion of 19 per cent each through improving the quality of products and introducing additional designs of products in production system of their enterprises. The traditional categories of rural industrial enterprises are found more prone to bring additional articles and goods in the production system than the non-traditional enterprises while undertaking the expansion in their enterprises. Also a little over

half of the entrepreneurs among those are engaged in rope making, blacksmithy, carpentry and repairing and servicing activities have been planning for improving the production technologies while a very high majority of 92 per cent entrepreneurs among flour mills followed by 86 per cent tailoring and 69 per cent woollen activities are expected would be installing additional modern machines and equipments in their units. Improvements in the quality of products by way of bringing improved designs and other manners would be undertaken largely by traditional form of household based rural industries.

Table 5.7: **Perceptions of Entrepreneurs for Planning Expansion and Development of their Enterprises**

Type of Units	Entrepreneurs Planning the Expansion			Type of Methodology to be adopted in expansion and development						Total Units
	Yes	No	Total	Introduction of additional goods	Improving Technology	Adding additional machinery	Improving the quality of products	Introduction of new and additional designs	Any Other	
Woollen Textiles	65 (39.16)	101 (60.84)	166 (100.0)	46 (70.77)	31 (47.69)	45 (69.23)	13 (20.0)	15 (23.08)	--	65
Mating & Basketry	96 (35.82)	172 (64.28)	268 (100.0)	70 (72.92)	33 (34.38)	11 (11.46)	25 (26.04)	26 (27.08)	2 (2.08)	96
Carpentry	107 (75.89)	34 (24.11)	141 (100.0)	57 (53.27)	53 (49.53)	61 (57.01)	11 (10.28)	21 (19.63)	1 (0.94)	107
Blacksmithy	88 (64.71)	48 (35.29)	136 (100.0)	46 (52.27)	48 (54.54)	42 (47.73)	2 (7.95)	8 (9.09)	--	88
Rope Making	70 (43.21)	92 (56.79)	162 (100.0)	55 (78.57)	35 (50.00)	18 (25.71)	27 (38.57)	8 (11.43)	10 (14.29)	70
Flour Mill	37 (66.07)	19 (33.93)	56 (100.0)	10 (27.03)	10 (27.03)	34 (91.89)	3 (8.11)	--	--	37
Tailoring	71 (75.53)	23 (21.28)	94 (100.0)	34 (47.89)	27 (38.03)	61 (85.92)	16 (22.54)	12 (16.90)	--	71
Comb Making	18 (52.94)	16 (47.06)	34 (100.0)	10 (55.56)	6 (33.33)	10 (55.56)	4 (22.22)	9 (50.00)	2 (8.33)	18
Others	24 (70.59)	10 (29.41)	34 (100.0)	9 (50.00)	17 (94.90)	9 (37.50)	4 (16.67)	2 (8.33)	--	24
Total	576 (52.79)	515 (47.21)	1091 (100.0)	337 (57.46)	260 (49.14)	291 (50.52)	110 (19.09)	111 (19.27)	15 (26.04)	576

An enquiry has further been carried out to examine the factors which are limiting the scope of expansion of different rural industrial activities. The concerned analysis is

based on the perceptions of such entrepreneurs which are not making any further planning to initiate any diversification in their enterprises. It was portrayed in preceding analysis that inadequately developed marketing facilities and the increasing inaccessibility in obtaining required quantity of raw materials from different sources have been adversely affecting the growth pattern of various rural industries, especially which are based on locally available raw materials. The analysis further supports the similar findings as the inadequacy in the availability of required quantum of raw materials and limited marketing potentials of goods and articles as manufactured in rural industries have been indicated as the main reasons for not initiating any development by a little over half of the entrepreneurs. In addition to these two major factors, numerous other elements such as increasing competitions in selling of goods and articles in local areas as well as in nearby marketing centres, lacking financial resources as required for obtaining raw materials, meeting out the transportation costs in marketing of their products and installation of modern machinery and equipment, lack of technological knowledge for improving the quality of products and developing product designs and low returns in undertaking industrial activities as compared to other economic activities have also been equally restricting the planning of 515 entrepreneurs for undertaking any kind of diversification in their enterprises. The planning of undertaking expansion of a significantly highest proportion of entrepreneurs among those are engaged in blacksmithy (71 per cent) closely followed by 70 per cent tailoring and 63 per cent rope making enterprises have been restricted by the availability of limited marketing potentials for their products. Inadequate supply of different raw materials have been largely disavouring the planning of expansion of rope making, mating and basketry and repairing and servicing enterprises though least in cases of woollen, blacksmithy, four mills and tailoring enterprises. Also increasing competitions in selling the products of rural industries in nearby markets as well in rural areas itself has also been observed as a very important

reason in restricting the expansion planning of a little over 41 per cent enterprises. Among them a highest proportion of units are in the product group of repairing and servicing (70 per cent) followed by 37 per cent in woollen and 52 per cent in tailoring and a lowest proportion of 30 per cent in mating and basketry enterprises. Lacking financial resources for undertaking expansion has been reported by a little over 27 per cent entrepreneurs. Of which a half of them are engaged in each flourmills and repairing and servicing enterprises. Lacking technical knowledge in terms of developing new and additional designs of products and introduction of additional goods in production system have been restricting the planning of only 5 per cent entrepreneurs which are engaged in various traditional household based rural industries, while such problems are no way affecting the planning expansion of modern non-traditional industrial enterprises (Table 5.8).

Table 5.8: **Reasons for Not Undertaking Expansion**

Type of Unit	Limited Product Market	Inadequacy of Raw Material	Increasing Competition	Lack of Finance	Lack of Technical Knowledge	Low Returns	All Units
Woollen Textiles	46 (45.54)	34 (33.66)	64 (63.37)	35 (34.65)	9 (8.91)	--	101 (100.0)
Mating & Basketry	83 (48.25)	108 (62.79)	51 (29.65)	37 (21.51)	3 (1.74)	3 (1.74)	172 (100.0)
Carpentry	22 (64.71)	10 (29.41)	13 (38.24)	13 (38.24)	--	--	34 (100.0)
Blacksmithy	34 (70.83)	12 (25.00)	14 (29.17)	10 (20.83)	3 (6.25)	--	48 (100.0)
Rope Making	58 (63.04)	67 (72.83)	39 (42.39)	18 (19.57)	2 (2.17)	--	92 (100.0)
Flour Mill	7 (36.84)	7 (36.84)	6 (31.58)	10 (52.63)	--	--	19 (100.0)
Tailoring	16 (69.57)	10 (43.48)	12 (52.17)	6 (26.09)	5 (21.74)	--	23 (100.0)
Comb Making	4 (25.00)	6 (37.50)	6 (37.50)	5 (31.25)	--	--	16 (100.0)
Others	6 (60.00)	6 (60.00)	7 (70.00)	6 (60.00)	--	--	10 (100.0)
Total	276 (53.59)	260 (50.49)	212 (41.27)	140 (27.14)	24 (4.66)	3 (0.58)	515 (100.0)

Further it has been pointed out that a significant proportions of rural enterprises would be requiring differential types of interventions in the form of external assistances from the part of Government in undertaking expansion and development in their industrial activities. In case the government or any like institutions initiate some sort of intervention in removing the basic problems emerging in properly functioning of various rural industrial enterprises the proportions of willing entrepreneurs in favour of making diversification in their concerned enterprises is expected shall increase to the level of 80.38 per cent as against 49.49 per cent those are already determined for undertaking expansion in their units. In all the proportion of entrepreneurs proposing to initiate further expansion in their enterprises have jumped to the extent of 93 per cent among tailoring closely followed by 91 per cent among carpentry and 67 per cent among mating and basketry enterprises. Considering these factual perceptions and intentions of current entrepreneurs in view of initiating diversification in their industrial activities, it looks necessary to initiate a comprehensive intervention programmes for facilitating the rural industrial enterprises in the form of providing adequate financial support, initiatives towards upgrading the know-how production technologies, providing secured raw material procurement and marketing facilities, introduction of subsidised transport facilities in marketing of goods produced by rural industries and in transporting the supply of different raw material from various destinations, minimising the cost of raw materials through creating a raw material banks and funds for its purchasing. Significantly a very high proportion of over 64 per cent entrepreneurs are expected would initiate expansion in their enterprises in a situation of availing any form of financial assistances from the Government. Even the proportion of such entrepreneurs constituted as high as over 88 per cent among those are engaged repairing and servicing enterprises followed by 81 per cent in comb making, though a lowest proportion of nearly 39 per cent in rope making enterprises. A second majority of

nearly a half of the entrepreneurs, mainly those are engaged in repairing and servicing enterprises and almost the traditional household based industries could possibly initiate for extending diversification in their industrial activities only after getting an appropriate marketing facilities for their produced. And nearly one-third proportion of enterprises which are largely concentrated in traditional household based industries could be diverted towards making expansion in their activities through initiating certain improvements in the production technologies and the introduction of additional designs of and goods in production system so that these products can realise better prices with reduced competitions from the goods arriving from urban modern sector in rural as well as in nearby towns.

Table 5.9: **Expansion in case of Providing Assistance**

Type of Unit	Expansion			Kind of Assistance Required						
	Yes	No	Total	Financial	Techno-logical	Secure Marketing of products	Assured Supply of Raw Materials	Fund for Raw Materials supply	Others	Total Units willing expansion
Woollen Textiles	118 (71.08)	48 (28.92)	166 (100.0)	83 (70.33)	66 (55.93)	68 (57.62)	31 (26.27)	11 (9.32)	15 (7.98)	118 (100.0)
Mating & Basketry	180 (67.16)	88 (36.84)	268 (100.0)	114 (63.33)	59 (32.78)	86 (47.78)	81 (45.00)	8 (4.44)	12 (6.67)	180 (100.0)
Carpentry	129 (91.49)	12 (8.51)	141 (100.0)	93 (72.09)	24 (18.60)	56 (43.41)	14 (10.85)	9 (6.98)	--	129 (100.0)
Blacksmithy	118 (86.76)	18 (13.24)	136 (100.0)	69 (58.47)	26 (22.03)	55 (46.61)	23 (19.49)	13 (11.07)	2 (1.69)	118 (100.0)
Rope Making	142 (87.65)	20 (12.35)	162 (100.0)	55 (38.73)	58 (40.85)	78 (54.93)	45 (31.69)	6 (4.23)	6 (4.23)	142 (100.0)
Flour Mill	68 (69.47)	8 (10.53)	76 (100.0)	50 (73.53)	16 (23.53)	19 (27.94)	1 (1.47)	8 (11.86)	--	68 (100.0)
Tailoring	76 (92.68)	6 (7.32)	82 (100.0)	57 (75.00)	25 (32.89)	44 (57.89)	12 (15.79)	4 (5.26)	1 (1.32)	76 (100.0)
Comb Making	20 (76.92)	6 (23.88)	26 (100.0)	17 (80.95)	8 (40.00)	9 (45.00)	1 (5.00)	1 (5.00)	1 (5.00)	20 (100.0)
Others	26 (76.47)	8 (23.53)	34 (100.0)	23 (88.46)	12 (46.15)	17 (65.38)	1 (3.85)	2 (7.69)	1 (3.85)	26 (100.0)
Total	877 (80.38)	214 (19.62)	1091 (100.0)	562 (64.08)	294 (33.52)	432 (49.26)	209 (23.83)	62 (7.07)	14 (1.60)	877 (100.0)

Government Centres, subsidy on Raw Material cost and transport subsidy.

Making assured supply of required raw material can divert to nearly one-fourth proportion of enterprises, those are largely confined in undertaking traditional industrial activities, for carrying out certain development in their concerned units. Only a little over 7 per cent entrepreneurs have desired for financial assistance specifically for procuring raw materials and another around 2 per cent entrepreneurs have asked for providing transport subsidy to meet out the marketing cost. Moreover, the decreasing supply of locally available different raw material due to increasing depletion of various natural resources during the recent past and traditionally developed production technologies making rural industrial products comparatively less superior than the similar goods produced by modern enterprises and limited marketing facilities available within rural areas itself have been largely restricting the growth potential of different rural industries, especially the household based traditional industries. Having limited purchasing power with a majority of rural households is also equally limiting the scope of further expansion of rural industries, especially for favour of non-traditional form of enterprises which expansion require a sizeable amount of finances on its capital investments. In this context the intervention from the part of Government and other organizations to tackle out the emerging problems on these highlighted concerns would be an instrumental measure for promotion of rural industrialisation so as to overcome from the increasing challenges and the problems of unemployment, sustaining livelihood and poverty in hilly areas of the state.

CHAPTER - VI

CONCLUSIONS AND POLICY RECOMMENDATIONS

Creation of productive employment opportunities to the extent the labourforce has been increasing and the generation of additional income for households in rural areas have emerged as a major challenge in most of the developing countries, including India during the recent past. The agricultural and its associated activities, which have been forming the economic base and the prime sources of employment and livelihood of rural households for past several centuries have been believed would not be in a position to retain its dominating role in creating additional employment opportunities and income for rural households because of several factors such as ever declining man-land ratio, increasing fragmentation of land holdings making them uneconomic, availability of very small size of arable land for cultivation per farm household, increasing application of labour saving farm production technologies and so on. The well-recognised facts are also that even in a situation of bringing appropriate technological advancement and achieving rapid growth in agriculture sector it would unlikely be in a position to employ the entire labourforce at a reasonable level of productivity and income. In fact, the presently engaged workforce in different agricultural occupations is not employed fully. Thus the situation of under-employment among those are engaged in agriculture would continue to be a feature of rural employment due to very nature of agricultural activities.

In the context of above highlighted emerging facts confirming the inability of agriculture sector to cope up with the unprecedentedly increasing challenges of unemployment and income generation the most instrumental approach and option which can be sufficiently meet out concerned challenges would be the initiation of diversification of rural economic system through developing a long term planning approach towards the

expansion of various potential non-farm activities, especially the rural industrial activities. Undoubtedly, the rural industrial enterprises have been witnessed performing a dominating role after agriculture sector in terms of both providing employment and income opportunities to the labourforce in different regions. However, while grouping the rural industrial activities into modern and traditional segments it has been recognised that the labour productivity as well as the potential of creating additional employment opportunities tend out to be relatively higher in favour of former segment of enterprises as compared to latter one because the latter groups of units have continued mainly as a part of traditional and use traditional technologies through using largely family labour with a very low level of capital investment while such is not in case of modern technology based former segment of units. But on the whole the labour productivity in rural industrial activities constitutes fairly higher as compared to agricultural activities.

In this sense the approaches of initiating a comprehensive development programme together for traditional and modern industrial sector would be the most important alternative option to overcome from the challenges of creating additional employment opportunities according to increasing trend of labourforce and improving the livelihood situation of farming households in rural areas, especially in agriculturally backward regions such as hilly and mountain areas where the concerned challenges are more crucial as compared in high growth and agriculturally potential regions, largely because of the availability of scarced arable land for cultivation with almost the farming households. Considering these highlighted facts into account the present study has been carried out in the hilly and mountain areas of the Uttaranchal State.

Uttaranchal, a tiny State, dominated by mostly hilly and mountain areas, is one of the most socio-economically underdeveloped States in India. The State is inhabited by about 8.5 million population. The agriculture and its associated activities have been

constituting the economic base and the main sources of employment and livelihood of people for past several generations. However, unprecedented growth of population on one hand and decreasing availability of arable land coupled with declining its productivity on the other have been increasingly extending the problems of employment and sustaining livelihood of rural households. The scope of increasing farm productivity though applying improved agricultural practices is rather impossible because the agricultural operations are undertaken largely under rainfed conditions in terraced fields. Even the farm holdings are very small and undertaking agricultural operations on them becomes a very uneconomic affair. Hence, the creation of productive employment for additional labourforce through diversification of farming system seems to be hardly possible. Even initiating agricultural diversification through shifting of land into the production of various high value crops would mainly maximise per hectare income but it would be unable to create sufficient employment opportunities. Similarly the scope for large scale diversification of rural economy, especially through initiating industrialisation and large scale production system, is severely restricted because of a number of factors such as the limited environmentally sensitive resource base, the thin spread of usable resources across difficult and inaccessible terrain, inaccessibility to markets and modern inputs and technology, deficient infrastructure and high transport cost leading to non-competitiveness of products.

However, carrying out small scale production at household level through harnessing certain environmental resources based on traditionally developed indigenous technologies have not proved affect the local environmental and ecological system adversely. In fact almost the hilly areas of the State have possessed certain area

specific advantages and opportunities favouring them for the expansion of locally available resources based different product groups of manufacturing activities. Even the increasing development of various infrastructural facilities, especially access to credit facilities, transport and power have been favourably promoting the expansion of different non-local resources based tiny modern industrial enterprises in rural areas, especially along the roadside villages. Thus, the chances of expansion of both locally available resources based traditional household industries as well as modern categories of small industrial units are quite favourable. In fact initiating a comprehensive development planning for the expansion of both the categories of manufacturing activities can well prove as an effective measure for addressing the emerging problems of unemployment, poverty and out-migration of rural population to a certain extent.

In this light the objectives of present study have been centred around to examine at the mode of establishing growth and expansion pattern, factor influencing the expansion, sources of credit, structure and size of capital investment and production, use of technology, entrepreneurship, contribution in providing employment opportunities and generation of income in different geographical locations and across the farm size continuum, pattern of procurement and accessibility to the supply of different raw materials, prevailing marketing arrangements for selling final products, emerging problems in properly functioning and undertaking further expansion and the kind of measures and approaches to be initiated for expanding different product groups of rural industrial enterprises. The study also attempted to examine the operational situation, participation of different communities and castes of households in expansion and the kinds of backward and forward linkages operating in the expansion and growth pattern of different categories of units, the dynamic and market friendly component of

different product groups of rural industries contrasted to the one pursued as a distress phenomenon and lastly the constraints that the rural industrial sector is likely to face when the economy opens up further and so on. Based on certain secondary data obtained from different departments of the State Governments and the required primary data collected from 1091 rural industrial enterprises, which are confined in the line of 10 product groups and representing three districts of Garhwal and Kumaun division of the State the main findings of the present study are as follows.

Structure, Growth Pattern and Background Features of Expansion

In the state, the existing rural industries comprise of both traditional and non-traditional modern categories of household based enterprises but the domination is formed by traditional type of units. The basketry, comb making, blacksmithy, matting and rope making activities are largely adopted by certain social groups such as scheduled castes as a part of the village social and economic structure from generation to generation, form the traditional categories of industries, while carpentry, flour milling, tailoring and repairing and servicing enterprises should be considered as the modern non-traditional industries. The woollen activities were initially undertaken by Scheduled Tribes along with rearing of goats and sheep as their traditional activities for past several years but currently almost the castes of households in middle and high hill areas have also adopted the concerned activities. The traditional industrial activities have been playing an important role in employing the rural labourforce during off-seasons of agricultural operations and supplementing a sizeable part of income in the farming households for quite a long period while the contribution of non-traditional enterprises in both the context emerged very recently with the improvements took place in access to road transport facilities. However, over the years, most of the former

categories of rural industrial activities have been greatly washing away from the rural areas but a consistent increasing trend is visualised in case of the expansion of latter categories of industries. Even then due to lacking employment opportunities outside subsistence agricultural sector the trend of undertaking certain traditional industrial activities of young generation is still continued. Though, the young generation is rather reluctant to undertake the expansion of modern non-traditional categories of industries over the traditional one.

Excepting the case of woollen enterprises, remaining industrial enterprises have been well spread over in each of the geographical locations, the structure, however, differs somewhat with altitude. As the non-traditional industries are largely concentrated in low hill areas and have shown a significant growth in their expansion while the domination of traditional industries, especially woollen textiles is highly apparent in both middle and high hill areas. In all the rural industries have been declining at the rate of 8 per cent per annum. Of the total existing units a fairly larger proportion of over 74 per cent were established before 1980 while only less than one per cent units, comprising of non-traditional categories came into existence during post-2000 period. A major downfall in the growth of rural industries is visualised in middle and low hill areas, in particular of rope making, blacksmithy, basketry and mat making enterprises partly due to lack of interest emerging among young generation to engage in low earning based activities and partly due to decreasing pattern in the supply of required raw materials from the nearby forests. Though the carpentry is the only rural industrial activity among the various local resources based industry, which is gaining its ground quite satisfactorily in middle and low hill areas with a marginal setback in high hill areas. Moreover, the rural enterprises such as non-traditional modern one and

carpentry which are involved in the transactions of goods and services between rural and urban areas vis-à-vis urban to rural areas and those are possessing relatively higher income generation potentials are finding a favourable opportunity for their expansion while the most household based traditional enterprises have been even lacking to sustain their survival in different geographical locations.

Since a fairly large proportion of rural industries are quite old and were established over two and a half decades ago. It is, therefore, the average age of the head of rural industries is as higher as 45 years. It has further been pointed out that the undertaking of rural industrial activities is hardly requiring any highly technical and educated manpower to run these enterprises successfully. As over 85 per cent of the present entrepreneurs of different rural industries have availed only functional literacy, even 14 per cent of them are illiterate while only nearly 2 per cent entrepreneurs have attained the higher level of education. Despite the fact a overwhelming majority of over 72 per cent industries were inherited by the present entrepreneurs from their parent owners only a little over one-third of the entrepreneurs were motivated by their parents to opt to engage in their household based traditional industrial activities while nearly half of them have decided to opt concerned activity by their own choice. In addition to these factors, the traditionally developed social relationship between the upper castes of households and scheduled caste households is still largely influencing the expansion pattern of different rural industrial activities in the State, though largely in high altitude areas as compared to middle and low hill areas. Industrial activities such as rope making, blacksmithy, mating and basketry and comb making are being undertaken under such social relationship basis by Scheduled Castes households for last several generations in almost the locations. The expansion of only a little over 6 per cent units, especially traditional household based enterprises which are mostly headed by economically poor households took place under the ongoing self-

employment programmes. Further, it has been pointed out that increasing incidence of unemployment among rural labourforce has been largely forcing them to join or start even a very low paid traditional rural industrial activities while the retired workforce from their previous employment and those were attaining education have been mainly opting to establish the relatively higher paid modern industrial enterprises. In all a significant extent of occupational mobility has been visualised taking place among the rural workforce. As nearly 45 per cent of the present entrepreneurs were earlier engaged in different economic activities before joining their present rural industries. In fact, nearly one-fourth proportions of them were earlier engaged in different wage-paid-employment and 6 per cent in service sector employment while remaining were self-employed. The emerging problems of insecurity and irregular employment and availability of a very low amount of earnings in different occupational structure of employment have been largely forcing to rural workforce to move in a number of occupations even to start the rural industrial activities. Even most of the present entrepreneurs of different rural industries have been undertaking at least more than two jobs during a year to sustain their livelihood. Only around 10 per cent entrepreneurs are engaged in a single occupation as against 38 per cent and 44 per cent in two and three occupations respectively. Even a little over 8 per cent of entrepreneurs, mainly those are operating traditional units have been undertaking over 4 occupations during a year period.

Characteristics of Participating Households in Expansion and Contribution in Employment and Income Generation

Insufficiency of farm sector to sustain the livelihood of farm households is well supported by the fact that in spite of every rural household owned at least some land only a half of them have been reporting concerned sector as their principle occupation. Even the proportion of such households comprises as low as 33 per cent and 41 per

cent in high and middle hill areas respectively. The non-farm activities are the principle occupation of another 30 per cent households. However, this participation rate of households reaches to the extent of 43 per cent in high hill areas to 32 per cent in middle hill areas. Wage-paid-employment and rural industrial activities are indicated to have been forming a dominant role among different non-farm employment in providing both employment and income opportunities in each of the geographical locations.

Examining the hypothesis related to the linkages of the extent of poverty and size of farms in adopting rural industrial activity the analysis strongly prove that the participation of rural households in undertaking different rural industrial activities is negatively related across the farm size continuum. Similarly, the scheduled caste households which are known among the economically most vulnerable sections and also owned comparatively very small size of holdings as compared to other castes have been largely dominating in undertaking different product groups of industries, especially traditional form of industrial activities in different geographical locations. Also an important proposition which emerging is that a very small size of land available with the farming households has been mainly compelling them to engage in different non-farm activities, including in rural industrial activities.

Undertaking non-farm activities in general and industrial activities in particular in almost the hilly areas of the State is noted to be a very profitable affair despite the fact that they are generating a very low amount of earnings through mainly employing to the family labour available in industrial households. The margin of profit in undertaking different non-farm activities together is estimated to be 65 per cent. Even the contribution of income generated from adopting rural industrial activities alone has been estimated as high as 34 per cent as against 22 per cent together from farming

and animal husbandry in the rural households. Income earned through wage-paid-employment by way of engaging their family workforce in different non-farm activities, including the industrial activities of other households form the second most source of income generation of the rural households. In fact the contribution of income generated from rural industrial activities has been noted as high as over 65 per cent in carpentry households followed by 60 per cent in tailoring and 50 per cent in flour milling households. Over and above, the economic condition of industrial households seems to be rather satisfactory by virtue of adopting different rural industrial activities and engaging their family workforce in various other non-farm activities. Per household annual income being generated from all sources together accounted for Rs.23.97 thousand, though it varied significantly among the households engaged in different product groups of enterprises, highest at Rs.33.05 thousand for woollen to lowest at Rs.17.93 thousand for blacksmithy households. Alone from undertaking industrial activities, it averages to Rs.8.20 thousand, with a highest range of Rs.14.60 thousand in adopting carpentry to lowest at Rs.4.14 thousand in undertaking roping activity.

The contribution of rural industrial activities has also been observed very significant in providing employment opportunities to the labourforce in rural areas. The working family members of industrial households have been simultaneously engaged in a numbers of non-farm employment in the capacity of self-employment as well as wage paid casual workers, besides working on their farming activities. However, the proportion of workforce engaged in their household based industries making them as their principle and secondary employment together accounted to around 53 per cent. Among different categories of enterprises the proportion of family workforce engaged in woollen activities accounted as high as 61 per cent followed by 53 per cent in

carpentry. Animal husbandry seems to be the second most source of employment after rural industrial activities, in which nearly 22 per cent of workforce is employed. Inability of farm sector to employ rural workforce gainfully has been well supported by the fact that only 19 per cent of workforce have been making farming activities as their principle source of employment and earnings.

However, increasingly lacking productive employment opportunities have been largely forcing to rural workforce to undertake a number of jobs simultaneously in order to supplement a sizeable income for their households. An overwhelming majority of over 93 per cent workforce has been engaging in more than one employment, even a little over 3 per cent workforce has to undertake over 4 jobs during a year. In all the average numbers of jobs being undertaken by the workforce of traditional industrial households stand relatively higher than the case of workforce belonging to non-traditional households because the workforce among latter groups of households are in a position to generate fairly higher income through engaging in their non-traditional enterprises as compared to former groups of households.

In spite of undertaking a number of jobs the annual earnings of rural workforce averages to the extent of Rs.4705 only. Though the average earnings per worker reaches as high at Rs.8026 and Rs.6134 for those confined in repairing and servicing and flour milling enterprises respectively while it stands lowest at Rs.3463 for workers engaged in blacksmithy. In all the average earnings of workers employed in rural industrial activities comes around three and a half folds higher as compared to workers engaged in farming sector. Even the workforce engaged in farming sector have been deriving nearly 32 per cent less income as compared to the workforce engaged in animal husbandry.

Moreover, the participation pattern of rural households in the expansion of industrial activities has not been revealed very encouraging while the proportion of rural workforce engaged in this sector has been noted quite significant. In fact, it is expected that despite a considerable declining trend revealed in the overall participation of rural households in the expansion of different rural industries, especially traditional categories of enterprises during the recent past the expansion of potential and niche based product groups of industrial enterprises shall continue, even it could boost up at a certain level in the future. Because, due to increasingly lacking employment opportunities in rural areas of Uttaranchal, the young generation has been increasingly opting to establish various potential rural industrial enterprises. The presently emerging situation is that almost the product group of rural industries have been employing at least some proportion of hired labourers along with their family labourforce in their production process. However, the size of hired workers as required in performing industrial activities accounts to the extent of only 4.65 per cent of the total workforce engaged on them. However, in activities such as repairing and servicing the proportions of hired labourforce accounted over 24 per cent. The analysis also revealed that both men and women labourforce have been equally participating in performing of rural industrial activities though the participation of men labourforce has been apparently leading to their women counterpart, excepting in woollen industries and none of the industrial enterprises have been hiring any women labourforce on wage-paid-employment basis. But in spite of higher labour absorption in relation to income derived, the rural industrial units, in fact, have a relatively small number of workers per unit. Average number of workers employed is 1.47, though it is highest at 2.03 workers in woollen and remains almost less than 2 workers in remaining groups of industries.

On an average, the rural workforce is getting the employment opportunity for only 128 days annually in rural industrial sector, though per worker days of employment for family workers revealed significantly higher than the case of hired workers. Also the women workforce is finding higher days of employment as compared to their men counterpart, especially in woollen activities. However, the workers employed in rural industrial activities have been working for only 5.30 hours in a day, though it is as high as 7 hours for workers employed in tailoring activities.

The efficiency of different rural industrial enterprises, as measured in terms of their productivity level and its contribution to the income of rural households, has shown a remarkable positive change, though relatively at larger level for non-traditional enterprises as compared to traditional enterprises. The labour productivity, more or less follows the order of output per enterprise but the differences in employment size are not much larger for different enterprises. Per worker productivity for all rural industries together worked out to Rs.9.28 thousand, ranging lowest from Rs.4.91 thousand for rope making to highest at Rs.29.54 thousand for repairing and servicing enterprises. Similarly, average size of output per enterprise comes out to Rs.13.62 thousand which stands lowest at Rs.4.91 thousand again for rope making activities to highest at Rs.47.92 thousand for repairing and servicing enterprises.

Significant level of differences also exist in the pattern of income generation in undertaking different industrial activities though a marginal level of variations prevail between the level of per unit amount of income generation and value added being generated from different industries, because most rural industries are not hiring any worker and are running only through engaging their family workforce. Similarly, with a very high raw material content which is basically obtained free of cost from local forests

in the cases of most rural industries, the per unit value added to output ratio turns out to be quite high at 95 per cent points, though it reaches fairly much low level in case of non-traditional enterprises. Also due to lower level of absorption of hired labour the differences between value added and net income turn out to be very low as compared to the differences in the ratio of value added and output. Earning per household worker is estimated to be Rs.8.83 thousand with an extremely larger differences emerging between the workers employed in traditional and non-traditional industries, accounting for Rs.5.18 thousand and Rs.17.67 thousand respectively. In all the amount of income per worker or per household generated together from farm and rural industrial enterprises seems to be sufficient to maintain the livelihood of rural households in hilly areas and also it is much higher to the level of prescribed poverty line for households in rural areas is concerned.

Structure of Capital Investment, Production, Marketing and Raw Material Procurement

It has been well recognized that the establishment of rural industrial enterprises requires a very low level of capital investment that is mainly in installation of necessary machines and other equipments. These activities are generally undertaken through using a part of residential houses and labourforce available in concerned industrial households. But the process of using separate workshed for undertaking industrial activities, installation of additional machinery and equipments and hiring out of labourforce get started boost up with the increase in size of turnover and income from the concerned industrial enterprises. Average size of capital investment per unit which was initially Rs.3601 at the starting of units, it has presently reached to the extent of Rs.6712, showing an increase of over 86 per cent. Initially almost the rural industrial

activities have been operating in the residential houses of industrial households but presently a sizeable proportion of the non-traditional industrial households have constructed the separate worksheds for its operation. Therefore, the share of land and building in the total value of productive capital has been noted to the extent of 46 per cent as against 32 per cent for machinery and equipments and remaining 22 per cent for working capital. Among the different components of capital investment the highest increasing trend is revealed in favour of working capital and least in case of land and building.

In spite of the fact that the per unit value of fixed capital in rural enterprises accounted very low at Rs.2088, but the presently installed machinery and equipments in over 64 per cent enterprises is sufficient at least to run them successfully in view of achieving the size of production according to ongoing local demands. However, fairly a high proportion of around 71 per cent industrial enterprises are not in a position to produce the better quality of goods through presently installed machinery in their units because nearly 41 per cent industrial activities have been operating through using locally manufactured machines and tools. The financial requirements from the initial period of the establishment of different units and in different stages of operations of a majority of 82 per cent industrial enterprises is met out from the own sources of industrial households. Remaining 18 per cent entrepreneurs have availed financial assistance in the form of subsidy-cum-loan under the various ongoing self-employment programmes covered on the name of IRDP, TRYSEM, PMRY, etc. for the purpose of purchasing machinery and equipments.

Average size of output in different industrial enterprises is visualised to be significantly related with the size of investment undertaken on them. But the per unit

size of capital investment and size of output have been recorded appreciably much higher in favour of flour mills followed by servicing and repairing enterprises and lowest in comb making enterprises. Per unit size of output averages to Rs.13.63 thousand, though over a half of enterprises, largely traditional form of industries have been generating the output valued at less than Rs.10,000 annually. Performance of different rural industries in terms of productivity and in the pattern of deriving per unit output is also well substantiated by the overall growth that has taken place in these activities during 1988 and 2004. Despite a very little amount of investment carried out the value of output per unit seems to be boosting up to a relatively higher level in almost the rural industries, excepting the case of tailoring.

Almost the industrial enterprises have been getting the opportunities to sale out a major proportion of their production to its consumers and only 1.70 per cent of the gross output is being kept out unsold in the stock. Also, in spite of a very little size of per unit production undertaken by rural industrial activities the overall size of production has been increasing at the rate of 5.17 per cent annually, though it is boosting up significantly higher level for non-traditional units as compared to traditional units. In fact the volume of production in over 46 per cent enterprises is expected will continue to increase further even at the higher rate than they have been achieving presently if the accessibility situation to the availability of different raw materials and market demands for their production to be continued as prevailing presently. But such enterprises are largely confined in undertaking non-traditional as compared to traditional form of industrial activities. The benefit of declining growth in the expansion of rural industries has also reduced the competition in selling out and realising better prices for different rural industrial products in favour of 5 per cent enterprises.

However, the understanding of a overwhelming majority of entrepreneurs which are mainly undertaking non-traditional industrial activities was that the decreasing demands for their products have been subsequently narrowing down the overall size of output of their enterprises.

The rural industrial activities are involved in manufacturing of different goods and articles to meet the demands of local villagers while the surplus is sold out in nearby towns, neighbouring villages and a very small part of production is sold out in the exhibitions organised outside region while a less than one per cent of it is lifted together by middlemen and different departments of State Government. But over the years, the demand of products manufactured by traditional industries have been considerably increasing in neighbouring villages and in nearby towns and even outside Uttaranchal whereas the modern non-traditional industrial enterprises have been largely meeting out the local demands. Emergence of middlemen in marketing of rural industrial products seems to be very negligible and restricted upto a lifting of 3 per cent products of comb-making enterprises, 2 per cent mating and basketry goods and less than one per cent of each rope making and carpentry production. However, due to inaccessibility problems arising in many rural areas nearly one-fourth proportions of industrial households, which are mainly involved in traditional groups of industries, are deciding to sale their products through middlemen and contractors; though an overwhelming majority of them have been preferring to sell their products through involving Government Agencies. Also a sizeable majority of non-traditional industrial households are still preferring to dispose off their industrial products within the local villages itself.

Access to and the availability pattern of different raw materials are among the most important factors, which determine and influence the level of productivity and

income and thus, the overall development prospects of industrial activities. The concerned hypothesis have been well substantiated by the fact that due to increasing scarcity in the availability of local raw materials and its decreasing supply from nearby forests the local raw material based rural industrial activities have been increasingly washing away from rural areas, and the workforce engaged on them have been either largely moving towards the establishment of other potential non-farm activities or migrating outside rural areas for seeking employment.

Moreover, the production system of an overwhelming majority of 83 per cent rural industrial enterprises is stated to be partially or fully based on local supply of raw materials. The carpentry, basketry, mat making, rope making and comb making activities are the major rural industrial units, which prospects of development are basically based on the supply of raw material from nearby forests. In all the contribution of local supply in the total value of raw material used by rural industrial activities constituted at 60 per cent, in fact it stands as high as 76 per cent for woollen followed by 74 pr cent for carpentry enterprises. Over the years the average distance to be covered for obtaining locally available raw material has been consistently increasing due to increasing exploitation of various natural resources by local people for using them other than industrial purposes. In this context, providing increasing initiatives towards the plantation as well as scientifically exploitation of existing natural resources in general and certain forest resources which are used as raw materials in the production process of different rural industries would, therefore, be an important measure both for the healthy growth of rural industries, thereby increasing the opportunities of income and employment for rural communities as well as for the preservation of environmental systems.

Problems and Prospects

By and large the expansion pattern of certain product groups of enterprises have been slow down, even a significant proportion of traditional form of industrial units have been washed away from rural areas partly due to increasing scarcity in the availability of locally available raw material and lacking access to proper marketing facilities and more explicitly due to decreasing participation of local communities in adopting industrial activities as their livelihood sources, with the notion that rural industrial activities process a very low level of productivity and provide insignificant income as compared to employment available in other non-farm occupational structure of employment. Besides the factors such as the lack of finances and credit facilities to meet out the costs of procuring raw material, marketing of the produced and related aspects, limited demands of industrial products and increasing competitions in their selling in both internal and external markets, low quality of goods and articles produced due to the application of indigenous mode of production technologies and undesirable interferences of Government machinery while supplying goods into nearby markets for its selling and procuring raw materials from different sources, have also been adversely affecting the growth pattern of various rural industrial activities.

Incorporating the perceptions of entrepreneurs of different rural industrial activities it is believed that initiating certain improvements in the quality of products through replacing indigenous mode of technology by introducing advance production technologies, diversification of production systems by introducing additional products with additional designs in production system, qualitative change in production system, access to transport facilities, and providing subsidy on the cost of marketing the goods and supply of raw materials from different destinations, provision of providing rebate on

the marketing of various goods and articles manufactured by different rural industries on the pattern it has been introduced for khadi products, development of appropriate marketing facilities in a manner of establishing co-operative societies, Government purchase centres and increasingly organising exhibitions and establishment of raw material banks in specific to different raw materials in diversify manner according to the concentration pattern of different product groups of industries in different locations could be the most suggestive options to sustain and further expansion of different rural industrial activities in the State.

In spite of a significant declining trend revealed in the growth pattern of various rural industrial activities and numerous problems arising in their properly operation the overall quantum of production per unit, labour productivity and size of employment in this tiny sector have been significantly increasing during the recent past. The size of production is expected would increase further at the rate of nearly 10 per cent per annum, even it may increase at the tune of above 20 per cent in favour of a little over 6 per cent industries, though they largely form in non-traditional groups of industries. In matters concerned to the perceptions of achieving further development and growth in rural industrial activities it is expected that over half of the entrepreneurs of different rural industries would initiate to undertake at least some structural changes either by way of bringing improvements in production technologies and the quality of products or through initiating diversification and bringing additional goods and articles in production system. However, another nearly 29 per cent entrepreneurs could also be encouraged for undertaking certain development on their enterprises if the intervention from the part of Government or like institutions could be initiated for developing appropriate marketing network for selling their products, assured supply of raw materials,

improving access to the facilities of credit, improved production technologies and other required necessary infrastructural facilities.

Policy Recommendations

In an emerging situation of continued increasing fragmentation of land holdings leading to decreasing availability of arable land for cultivation per farm household and decreasing quality of this land due to increasing degradation and depletion of various environmental resources supporting to agricultural productivity the farming sector alone is expected would neither be in a position to create additional employment opportunities nor to sustain the livelihood of farm households in the State, especially in its hilly and mountain areas. In fact, undertaking economic diversification through initiating the expansion of large industries is restricted by the availability of fragile ecosystem and certain environmental constraints and lacking certain infrastructural facilities promoting to industrial development. In this manner, the emerging increasing challenges of unemployment, poverty and unsustained livelihood situations can be reduced through initiating for planning development of various potentially viable rural industrial activities who are possessing certain specific area comparative advantages in terms of their development possibilities.

Despite a significant declining trend revealed in the growth of different traditional industries the significance of undertaking different product groups of rural industrial activities in terms of both engaging household labourforce in its operations and generating a sizeable amount of income for sustaining the livelihood of rural households have been well recognised in different geographical locations of state. Lacking employment in rural areas has been increasingly forcing the rural labourforce

including young generations either to opt the establishment of new enterprises; mainly in modern sector or to join their household based traditional industrial activities. Average size of per industrial household or per worker income being originated from different categories of industrial units, especially from non-traditional form of units along with per household income generated from farm sector seems to be quite sufficient for sustaining the livelihood of farm households in rural areas of the State. The expansion of different industrial enterprises took place largely through the initiatives undertaken by rural communities during several generations ago and partly with the increasing expansion of transport facilities and linking villages with the nearby urban centres. However, any concrete intervention is lacked from the part of Government towards developing and initiating a comprehensive planning approach for scientifically exploitation of naturally given certain area specific comparative advantages and opportunities for expanding certain local resources based rural industrial enterprises. In addition, increasing scarcity of locally available various forest based natural resources which were used as raw materials in the production process of traditional industries; lacking access to marketing, credit and certain other infrastructural facilities, use of traditionally developed inefficient mode of production technology, declining demands and increasing competitions in selling of goods and articles both in local and external markets; lacking diversification in the production system and low level of productivity and income generation potentials have been portrayed adversely affecting the growth pattern of rural industrial activities. In such circumstances it shall be more desirable to incorporate the following recommendations while initiating planning development of rural industrialisation in different socio-

economically backward and hilly areas and in particular reference to hilly areas of Uttaranchal.

- (i) So far the increasing access to road transport facilities have well proved the expansion pattern of various non-traditional rural industrial enterprises in nearby roadside villages and the marketing potential for goods and articles produced in traditional industrial activities outside rural areas. Increasing emphasis on connecting different inaccessible areas, especially which are possessing certain favourable opportunities for developing different locally available resources based industrial activities, with the road transport facilities may further prove the healthy growth of this sector.
- (ii) Almost the areas in hilly part of the State have been possessing certain location specific comparative advantages in favour of growing various niche based high value and market oriented food crops, fruits, off-season vegetables, spices, herbs and several other non-food crops. Hence initiating agricultural diversification through maximising the use of available arable land under the production of these niche based high value crops and then initiating the expansion of various agro-based micro and small scale industrial enterprises through developing a comprehensive planning strategy for simultaneously development of both the sectors could possibly be an important measure for achieving increasing rural industrialisation as well as farm productivity to a certain level.
- (iii) Bringing improvements in the production technology, know-how and diversification in production system according to changing market demands would be necessary for improving the quality and then reducing the problems of

emerging competitions in selling of various rural industrial goods and articles and finally widening its marketing potentials outside rural areas.

- (iv) In the context of achieving increasing rural industrialisation the main objectives of various rural development programmes should be centres around to provide employment opportunities through promoting the expansion of different potential industrial activities rather than introducing target oriented employment programmes, which basically provide wage-paid-employment for a shorter duration.
- (v) Establishment of raw material banks in specific to different product groups of industries and where they are fairly largely concentrated and undertaking intensive afforestation programme based on the plantation of different forest resources and trees which are used in production process of various rural industries so as to strengthen the local supply of different raw materials will be necessary to boost up the size of production and achieving further growth in expansion of different rural industrial enterprises in various geographical locations.
- (vi) Similarly it may also be suggested to extend the marketing facilities through establishing co-operative societies at micro level in clusters of villages where different product groups of industries are highly concentrated and sales centres in nearby towns to ensure the sale of industrial products so as to encourage the industrial households towards maximising their production capacity and to increase the size of production as well.
- (vii) Introduction of a provision of providing subsidy on the cost of transportation of goods and articles from its production centres to the nearby marketing

destinations and in procuring of different raw materials from its supply centres, initiating and proving the facility of rebate in selling of different rural industrial goods as has already been introduced for Khadi based goods and articles for specific durations would certainly boost up the pace of rural industrialisation in the State.

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